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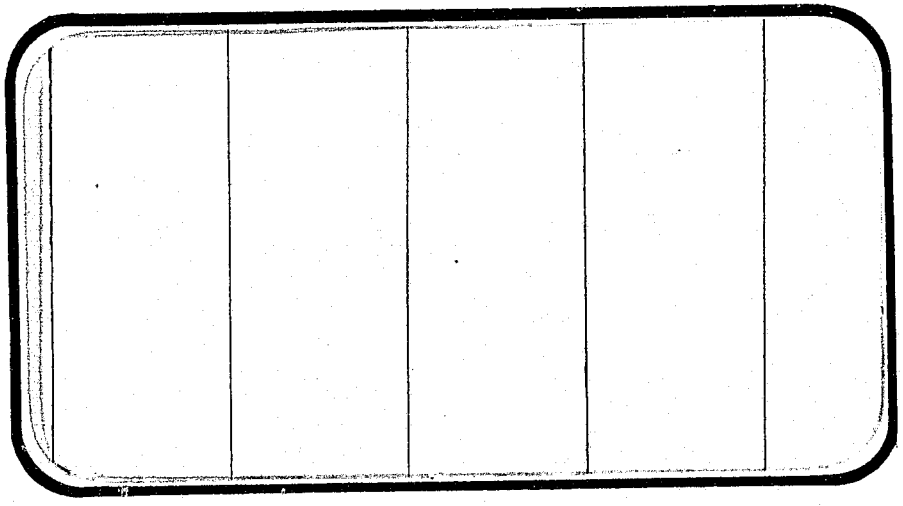
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(NASA-CR-134440) HYPERSONIC AEROHEATING TEST OF SPACE SHUTTLE VEHICLE CONFIGURATION 3 (MODEL 22-OTS) IN THE NASA-AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (IH20), VOLUME 1 (Chrysler Corp.) 791 p HC $17.25 CSCL 22A G3/18

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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION CHRYSLER CORPORATION

May, 1975

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NASA-CR-134,440

HYPERSONIC AEROHEATING TEST OF SPACE SHUTTLE VEHICLE CONFIGURATION 3 (MODEL 22-OTS) IN THE NASA-AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (IH20)

VOLUME 1 OF 2

By

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William K. Lockman, NASA Ames Research Center

Prepared under NASA Contract Number NAS9-13247

By

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for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number:	ARC 3.5-185
NASA Series Number:	IH20
Model Number:	22-OTS
Test Dates:	18 January through 6 February 1974
Occupancy Hours:	192

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HYPERSONIC AEROHEATING TEST OF SPACE SHUTTLE VEHICLE CONFIGURATION 3 (MODEL 22-OTS) IN THE NASA AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (IH-20)

By

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ABSTRACT

This report presents the results of wind tunnel test IH20 conducted in the NASA-Ames Research Center 3.5-Foot Hypersonic Wind Tunnel. The model tested was an 0.0175-scale version of the vehicle 3 Space Shuttle Configuration. Temperature measurements were made on the launch configuration, orbiter plus tank, orbiter alone, tank alone, and solid rocket booster (SRB) alone to provide heat transfer data. The test was conducted at free-stream Mach numbers of 5.3 and 7.3 and at free-stream Reynolds numbers of 1.5×10^6, 3.7×10^6, 5.0×10^6, and 7.0×10^6 per foot. The model was tested at angles of attack from -5° to 20° and side slip angles of -5° and 0°.

This report is presented in two volumes. Volume I contains a sample of plotted data and the tabulated QDOT data. Tabulated H/HO data are presented in Volume II.

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4	Effect of Repeatability						
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	- Wing, Bottom	01+T15+S8	5.3	-5.0	B	Wind Tunnel Test	15-19
	- Wing, Top	01+T15+S8	5.3	-5.0	B	Wind Tunnel Test	20-22
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13	Effect of Reynolds No.						
	- Body	01+T15+S8	5.3	-5.0	A	RN/L	86-95
14	Effect of Reynolds No.						
	- Wing	01+T15+S8	5.3	-5.0	B	RN/L	96-103

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15	Effect of Reynolds No. - Vertical	01+T15+S8	5.3	-5.0	C,D	RN/L	104-108
16	Effect of Reynolds No. - External Tank	01+T15	7.3	0.0	A	RN/L	109-115
17	Effect of Reynolds No. - Body	01+T15	7.3	0.0	A	RN/L	116-125
18	Effect of Reynolds No. - Wing	01+T15	7.3	0.0	B	RN/L	126-133
19	Effect of Reynolds No. - Vertical	01+T15	7.3	0.0	C,D	RN/L	134-138
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21	Effect of Reynolds No. - Wing	01	5.3	-5.0	B	RN/L	149-156
22	Effect of Reynolds No. - Vertical	01	5.3	-5.0	C,D	RN/L	157-161
23	Effect of Reynolds No. - External Tank	01+T15+S8+X28	5.3	-5.0	A	RN/L	162-168
24	Effect of Reynolds No. - SRB	01+T15+S8+X28	5.3	-5.0	A	RN/L	169-175
25	Effect of Reynolds No. - Body	01+T15+S8+X28	5.3	-5.0	A	RN/L	176-185

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FIGURE	TITLE	CONFIG.	MACH	ALPHA	COEFFICIENT SCHEDULE	CONDITIONS VARYING	PAGE NUMBERS
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29	Effect of Reynolds No. - Wing	01+X28	5.3	-5.0	B	RN/L	209-216
30	Effect of Reynolds No. - Vertical	01+X28	5.3	-5.0	C,D	RN/L	217-221
31	Effect of Reynolds No. - External Tank	T15	5.3	-5.0	A	RN/L	222-228
32	Effect of Reynolds No. - External Tank	T15+X28	5.3	-5.0	A	RN/L	229-235
33	Effect of Reynolds No. - SRB	S8	5.3	-5.0	A	RN/L	236-242
34	Effect of Reynolds No. - SRB	S8	5.3	15.0	A	RN/L	243-249
35	Effect of Reynolds No. - SRB	S8	5.3	20.0	A	RN/L	250-256
36	Effect of Reynolds No. - SRB	S8+X28	5.3	-5.0	A	RN/L	257-263

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COEFFICIENT SCHEDULES:

(A): H/HO vs. X/L

(B): H/HO vs. X/C(WING)

(C): H/HO vs. X/C(VERTICAL)

(D): H/HO vs. Z/BV

NOMENCLATURE

Symbol	Plot Symbol	Definition
b		thickness of model skin
B		span length
C		specific heat of model skin material
c		chord length
C_0, C_1, C_2		constants in curve fit for C over model wall temperature range
c_p		specific heat of air stream (perfect gas value)
CHAN	CHAN	recording-system channel
H_{aw}	HAW	adiabatic wall enthalpy
H_t	HT	free-stream total enthalpy
	HO	average of free-stream total enthalpy values of all tunnel runs incorporated into an aero dataset
H_w	HW	enthalpy based on model wall temperature for given T/C location
h	H	heat-transfer coefficient at model wall for given T/C location
h_s	HS, HREF	stagnation-point heat-transfer coefficient for reference sphere
h/h_s	H/HO, H/HREF	ratio of model heat-transfer coefficient to heat-transfer coefficient of reference sphere for H_{aw}/H_t = X.XXX
IML		inner module line
L	Length	model reference length
M_∞	MACH	free-stream Mach number

NOMENCLATURE (Continued)

Symbol	Plot Symbol	Definition
P_t	PT	free-stream total pressure
	PO	average of free-stream total pressure values of all tunnel runs incorporated into an aero dataset
$\dot{q}$	QDOT	heat-transfer rate at model wall for given T/C location, BTU/ft^2-sec
$\dot{q}_s$	QS, QREF	stagnation-point heat-transfer rate for reference sphere at initial time
R_s	RS	reference sphere radius at model scale equivalent to 0.305 m (1 ft) for full-scale vehicle
Re_∞/ft		free-stream Reynolds number per foot
	RN/L	average of free-stream Reynolds number values (per foot) of all tunnel runs incorporated into an aero dataset
Re_∞,L	REL	free-stream Reynolds number based on model reference length, L
	S	assumed chordwise location (for Clusters Band C) - see Figure 2
	S/R	body wetted running length
St	ST	Stanton number based on free-stream flow conditions and the model heat-transfer coefficient for H_{aw}/H_t = X.XXX
T		temperature
T_t	TT	free-stream total temperature
	TO	average of free-stream total temperature values of all tunnel runs incorporated into an aero dataset
T_w	TW	model wall temperature for given T/C location

NOMENCLATURE (Continued)

Symbol	Plot Symbol	Definition
T/C	T/C	thermocouple
t		time
t_i	TIME	initial time (before model insertion into flow) extrapolated from $f(T_W)$ vs time
u,V		velocity
W		density of model skin material
X		axial distance measured from nose
	X/C	chordwise location, fraction of local chord
	X/L	longitudinal location, fraction of body length
Y		spanwise distance from centerline
	2Y/B	spanwise location, fraction of semi-span
Z		water plane distance
	Z/BV	spanwise location on vertical tail, fraction of exposed span
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
μ		viscosity of air
ρ		density of air
θ	THETA	external tank angular surface coordinate, measured clockwise looking forward. 0 degrees at bottom centerline
ϕ	PHI	orbiter angular surface coordinate, measured clockwise looking forward. 0 degrees at bottom centerline

NOMENCLATURE (Concluded)

Symbol	Plot Symbol	Definition
ψ	PSI	SRB angular surface coordinate, measured clockwise looking forward. 0 degrees at bottom centerline

SUBSCRIPTS

aw	adiabatic wall
i	initial value before model insertion
O	Orbiter
PG	perfect gas (calorically and thermally perfect gas)
s	reference sphere
S	SRB
t	free-stream total condition
T	tank
V	vertical tail
w	wall
∞	free-stream

MODEL DESCRIPTION

The 22-OTS model is a 0.0175-scale thin-skin thermocouple model of the Rockwell vehicle three (3) configuration lightweight orbiter with external tank and solid rocket booster. The orbiter, tank and SRB's can be tested alone or in the 1st and 2nd stage configurations. Orbiter control-surface deflections are as follows:

Elevons: -40°, 0°, +5°, +10°

Rudder Flare: 0°, 40° (outside surface included angle)

The orbiter body flap can be tested at 0° and at +10° by adding a 10° wedge to the stationary 0° deflection position. All orbiter control-surface deflections were set to 0° for this test program.

The structural area of the model is constructed of 15-5 PH with instrumentation areas of 15-5 PH and 17-7 PH stainless steel. The nominal skin thickness was machined to 0.030 inch at the instrumented areas. Local thermocouple (T/C) skin thicknesses are tabulated in Tables IV to VII. All thermocouples were laser welded to the thin-skin surface and the leads conveniently clamped in bundles within the model. Nominal thermocouple locations and skin thicknesses for wing leading edge clusters B & C are shown in Figure 2a; these values were used for data reduction and plotting. Actual (post test) thermocouple location and skin thicknesses for these instrumented areas are presented in Figure 2b.

CONFIGURATIONS INVESTIGATED

1) $O_1 + T_{15} + S_8$ (integrated vehicle)

O_1 = Orbiter = $B_{17}\ C_7\ M_4\ F_5\ W_{103}\ E_{22}\ V_7\ R_5$

B_{17} = body

C_7 = canopy

M_4 = OMS pods

F_5 = body flap

W_{103} = wing

E_{22} = elevon

V_7 = vertical tail

R_5 = rudder

T_{15} = external tank (ET) with protuberances (plumbing lines and attach structure)

S_8 = solid rocket booster (SRB)

2) $O_1 + T_{15} + S_8 + X_{28}$

X_{28} = boundary layer trips

3) $O_1 + T_{15}$

4) O_1

5) $O_1 + X_{28}$

6) T_{15}

7) $T_{15} + X_{28}$

8) S_8

9) $S_8 + X_{28}$

TEST FACILITY

The NASA-Ames 3.5-Foot Hypersonic Wind Tunnel is a closed-circuit, blowdown-type tunnel capable of operating at nominal Mach numbers of 5, 7, and 10 at pressures to 1800 psia and temperatures to 3400°R for run times to four minutes. The major components of the facility include a gas storage system where the test gas is stored at 3000 psi, a storage heater filled with aluminum-oxide pebbles capable of heating the test gas to 3400°R, axisymmetric contoured nozzles with exit diameters of 42 inches for generating the desired Mach number, and a 900,000 ft^3 vacuum storage system which operates to pressures of 0.3 psia. The test section itself is an open-jet type enclosed within a chamber approximately 12-feet in diameter and 40-feet in length, arranged transversally to the flow direction.

A model support system is provided that can pitch models through an angle-of-attack range of -20 to +20 degrees, in a vertical plane, about a fixed point of rotation on the tunnel centerline. This rotation point is adjustable from 1 to 5 feet from the nozzle exit plane. The model normally is out of the test stream (strut centerline 37-inches from tunnel centerline) until the tunnel test conditions are established after which it is inserted. Insertion time is adjustable to as little as 1/2 second and models may be inserted at any strut angle.

A high-speed, analog-to-digital data acquisition system is used to record test data on magnetic tape. The present system is equipped to measure and record the outputs from 80 transducers in addition to 20 channels of tunnel parameters.

TEST PROCEDURES

The models were mounted with base stings at a preset attitude on the tunnel quick-insert mechanism. The model was set in pitch by putting an inclinometer directly on the external surface. Proper roll relationships between the orbiter, external tank, and solid rocket boosters were assured by the attaching stings. The quick-insert mechanism injected the model into the air stream when steady-state test conditions were established and retracted the model at the completion of data acquisition. The model injection and retraction times were each set at about 1 second and the time on the tunnel centerline was also set at about 1 second.

The model wall temperature data for each thermocouple location and the tunnel conditions were recorded on magnetic tape at 0.07-second intervals during the test duration of about 3 seconds. Shadowgraphs were also taken during each run.

Data from a maximum of 75 thermocouples could be recorded for any given run. Thermocouples, in groups of fifteen, were connected to plugs. For a given run, any selected five of these plugs were connected to a junction box which was wired directly to a thermocouple reference-temperature box. Thus, thermocouple changes required simple plug changes at the junction box. All this equipment was in the test section. The outputs from the reference-temperature box were connected directly to the data-acquisition system for recording. Prior to testing, a thermocouple heat-response check, through the data-acquisition system, was performed on all thermocouples to assure proper hook-up, polarity, and response.

DATA REDUCTION

All test data were reduced at the NASA/Ames Research Center using the data reduction techniques outlined below. The thermocouple data were reduced using the one-dimensional, thin-wall equation:

$$\dot{q} = WCb \frac{dT_w}{dt} = h (H_{aw} - H_w) \equiv hH_t \left(\frac{H_{aw}}{H_t} - \frac{H_w}{H_t} \right) \quad (1)$$

which neglects heat-conduction losses.

Assuming that W and h are constant and

$$C = C_o + C_1 T_w + C_2 T_w^2 \text{ for } T_w \text{ ranges} \quad (2)$$

the integration of equation (1) for $t = t_i$ to t and $T_w = T_{w_i}$ to T_w yields the linear equation:

$$f(T_w) = - \ell n \left(\frac{T'_{aw} - T_w}{T'_{aw} - T_{w_i}} \right) - \left[\frac{C_1}{C'_{aw}} + \frac{C_2}{C'_{aw}} \left(T'_{aw} + \frac{T_w + T_{w_i}}{2} \right) \right]$$

$$(T_w - T_{w_i}) = \frac{hc_p}{WC'_{aw}b} (t - t_i) \quad (3)$$

where it is defined that:

$$T'_{aw} \equiv \frac{H_{aw}}{c_p} = \frac{H_{aw}}{H_t} \frac{H_t}{c_p} \geq (T_{aw})_{PG} \quad (4)$$

$$C'_{aw} \equiv C_o + C_1 T'_{aw} + C_2 T'_{aw\,2} \quad (5)$$

$\neq$ specific heat at adiabatic wall temperature

The form of Eq (3) is $f(T_w) = mt + a$ where m is the slope and a is the intercept for a straight line if heat-conduction errors are negligible. Thus, deviations from a straight line can indicate heat-conduction effects.

DATA REDUCTION (Continued)

The slope, m, of $f(T_w)$ vs t from Eq (3) is computed by a least-squares, straight-line fit over a finite time interval (approx. 1 sec.) beginning when the model reaches uniform tunnel flow. The value of the heat-transfer coefficient, h, is then determined from:

$$h = \frac{WC'_{aw}b}{c_p} m \qquad (6)$$

Using this value of h, the heat-transfer rate is evaluated at the initial time, t_i, when the model is isothermal at the initial wall enthalpy, H_{wi}

$$\dot{q} = \dot{q}_i = h\,(H_{aw} - H_{w_i}) \equiv hH_t \left(\frac{H_{aw}}{H_t} - \frac{H_{wi}}{H_t}\right) \qquad (7)$$

where H_{aw}/H_t is the same value used to evaluate h. The resultant value of $\dot{q}$ is independent of the value of H_{aw}/H_t used for both the h and $\dot{q}$ evaluations.

The reference sphere heating is also evaluated at the initial wall enthalpy by the method of Fay and Riddell (ref. 1):

$$\dot{q}_s = h_s \quad (H_t - H_{w_i}) \equiv h_s\, H_t \left(1.0 - \frac{H_{w_i}}{H_t}\right) \qquad (8)$$

The model-to-sphere ratio of heat-transfer coefficients is then determined from Eqs. (7) and (8) as

$$\frac{h}{h_s} = \frac{\dot{q}_i}{\dot{q}_s}\left[\frac{1.0 - H_{w_i}/H_t}{H_{aw}/H_t - H_{w_i}/H_t}\right] \qquad (9)$$

where $\dot{q}_i$ is constant for all values of H_{aw}/H_t.

To determine h/h_s for various values of H_{aw}/H_t, the particular value of H_{aw}/H_t is substituted into Eq. (9).

The Stanton number is defined as

$$St \equiv \frac{h}{\rho u} = \frac{\dot{q}_i}{\rho u(H_{aw} - H_{w_i})} \tag{10}$$

where for free-stream conditions, $\rho u = \rho_\infty V_\infty$.

The calculations of the model heating, reference sphere heating, and Reynolds number included the corrections of NACA report 1135 (ref. 3) for calorically imperfect thermally perfect air. Keyes' equation for viscosity (see ref. 3) was also used for the sphere heating and Reynolds number computations:

$$\mu = \frac{0.0232 \times 10^{-6} T^{0.5}}{1 + \frac{220}{T} \times 10^{-9/T}} \tag{11}$$

where the units for T and μ are °R and lb-sec/ft, respectively.

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1. Fay, J. A.; and Riddell, F. R.: Theory of Stagnation Point Heat Transfer in Dissociated Air. J. Aeron. Sci., Vol. 25, No. 2, Feb. 1958, pp. 73-85.

2. Ames Research Staff: Equations, Tables, and Charts for Compressible Flow. NACA Rept. 1135, 1953.

3. Bertram, Mitchel H.: Comment on "Viscosity of Air." J. Spacecraft Rockets, Vol. 4, No. 2, Feb. 1967, pp. 287-288.

TABLE I.

TEST : IH20 (ARC 3.5 #185) DATE : 2-6-74

NOMINAL
TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (million per foot)	TOTAL PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Rankine)
5.3	1.5	120	1300
5.3	5.0	405	1300
7.3	3.7	870	1500
7.3	7.0	1640	1500

BALANCE UTILIZED: NONE

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF			
SF			
AF			
PM			
RM			
YM			

COMMENTS: Thin-skin thermocouple model

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TABLE II.

TEST: IH 2C

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 2/20/74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION M	CONTROL DEFLECTION RN/L	NO. OF RUNS	T/C SCHEDULE X1	X2	X3	X4	X5	X6	X7	X8	X9	X10
RENOO1	$O_1 + T_{15} + S_9$	-5	0	5.3	1.5		3	4	5	6	7	8	9			
02	$O_1 + T_{15} + S_8$		0		5.0		16	15	14	13	12	11	10			
03	$O_1 + T_{15} + S_8$		-5		5.0		20	21	19	22	23	24	25			
04	$O_1 + T_{15} + S_8 + X_{28}$		0		1.5		33	34	35	36	37	38	39			
05	$O_1 + T_{15} + S_8 + X_{28}$	-5			5.0		32	31	30	29	28	27	26			
06	$O_1 + T_{15}$	0			5.0		41	44	45	48	49	52				
07		5		5.3	5.0		42	43	46	47	50	51				
08		0		7.3	3.7		53	54	55	56	57	58				
09		-5		7.3	7.0		66									
10	$O_1 + T_{15}$	0		7.3	7.0		65	64	63	62	60	59				
11	O_1	-5		5.3	1.5		90	85	84	83						
12		-5			5.0		86	89	91	94						
13		5			5.0		87	88	92	93						
14	O_1	0			7.0		67	68	69	70						
15	$O_1 + X_{28}$	-5			1.5		99	100	101	102						
16	$O_1 + X_{28}$	-5	0	5.3	5.0		98	97	96	95						

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

H/HØ MACH HAW/HT

COEFFICENTS IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

*NOTE: See page 23 for Dataset Name key.

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TABLE II. - Concluded

TEST: IH20 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 2/26/74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION M	CONTROL DEFLECTION RNL			NO. OF RUNS	T/C SCHEDULE X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	TEST RUN NUMBERS
*RENO17	T_{i5}	-5	0	5.3	1.5											78	77		
18	T_{i5}	-5		5.3	5.0											73	76		
19	T_{i5}	5		5.3	5.0											74	75		
20	T_{i5}	0		7.3	7.0											72	71		
21	$T_{i5} + X_{22}$	-5		5.3	1.5											79	80		
22	$T_{i5} + X_{28}$	-5			5.0											82	81		
23	S_8	-5			1.5													111	
24		15			1.5													108	
25		20			1.5													109	
26		-5			5.0													106	
27		15			5.0													107	
28	S_8	20			5.0													110	
29	$S_8 + X_{28}$	-5			1.5													103	
*RENO30	$S_8 + X_{28}$	-5	0	5.3	5.0													104	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

H/HØ MACH ALT HT

COEFFICENTS IDVAR (1) IDVAR (2) NDV

*NOTE: See page 23 for Dataset Name key.

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REN---datasets contain H/HO data

QEN---datasets contain QDOT data

4th Character of Dataset ID	Location of Thermocouple
A	Orbiter, Phi = 0.0 (Bottom C_L)
B	Orbiter, Y = 0.438 (Fuselage Bottom Surface)
C	Orbiter, Y = 0.875 (Fuselage Side)
D	Orbiter, C.C.L. Tangent
E	Orbiter, M.H.B. Tangent
F	Orbiter RCS, Z = 6.125
G	Wing Upper Crease
H	Orbiter, Z = 7.525 (Upper Body)
I	Orbiter Windows
J	Orbiter, Z = 8.379 (Upper Body)
K	Orbiter, Phi = 180. (Top C_L)
L	OMS Bottom Crease
M	Orbiter, Z = 8.295 (OMS Pods)
N	Orbiter, Phi = 130. (OMS Pods)
O	OMS Top
P	OMS Inside
Q	Orbiter Body Flap, Y = 1.75
R	Bottom RCS
S	Solid Booster
T	External Tank
U	Orbiter, Z = 8.75 (OMS Pods)
V	Vertical Tail
W	Wing Bottom Surface
X	Wing Upper Surface
Y	Clusters B and C
Z	Orbiter Body

TABLE III. - MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B_{17}

GENERAL DESCRIPTION : Fuselage, 3 configuration, Lightweight Orbiter per Rockwell Lines VL70-000139.

MODEL SCALE: 0.0175

DRAWING NUMBER : VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	1290.3	22.580
Max Width - In.	267.6	4.683
Max Depth - In.	244.5	4.279
Fineness Ratio	4.82175	4.82175
Area - Ft^2		
Max. Cross-Sectional	386.67	0.1184
Planform		
Wetted		
Base		

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TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : CANOPY - C_7

GENERAL DESCRIPTION : Configuration 3 per Rockwell Lines VL70-000139

MODEL SCALE: 0.0175

DRAWING NUMBER : VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (X_o= 433 to X_o=578) in. FS	145.00	2.538
Max Width		
Max Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E_{22}

GENERAL DESCRIPTION: 3 Configuration per W_{103} Rockwell Lines Lines VL70-000139 data for (1) of (2) sides.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area - Ft^2	205.52	0.0629
Span (equivalent) - In.	353.34	6.183
Inb'd equivalent chord - In.	114.78	2.009
Outb'd equivalent chord	55.00	0.963
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.208	0.208
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	0.000	0.000
Trailing Edge	- 10.24	- 10.24
Hingeline	0.000	0.000
Area Moment (Normal to hinge line) - Ft^3	1548.07	0.008297

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TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : BODY FLAP - F_5

GENERAL DESCRIPTION : 3 Configuration per Rockwell Lines VL70-000139.

MODEL SCALE: 0.0175

DRAWING NUMBER : VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	84.70	1.482
Max Width - In.	267.6	4.683
Max Depth		
Fineness Ratio		
Area - Ft^2		
Max. Cross-Sectional		
Planform	142.5	0.0436
Wetted		
Base	38.0958	0.0117

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TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : OMS POD - M_4

GENERAL DESCRIPTION : Configuration 3 per Rockwell Lines VL70-000139

NOTE: M_4 identical to M_3, except intersection to fuselage.

MODEL SCALE: 0.0175

DRAWING NUMBER VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	346.0	6.055
Max Width - In.	108.0	1.890
Max Depth - In.	113.0	1.978
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. - MODEL DIMENSIONAL DATA = Continued.

MODEL COMPONENT: RUDDER - R_5

GENERAL DESCRIPTION: 2A, 3, 3A and 140A/B Configurations per Rockwell Lines Drawings

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000095, VL70-000139, VL70-000146A.

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area - Ft^2	106.38	0.0326
Span (equivalent) - In.	201.0	3.518
Inb'd equivalent chord - In.	91.585	1.603
Outb'd equivalent chord	50.833	0.8896
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	34.83	34.83
Trailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Normal to hinge line)-Ft^3	526.13	0.0028

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TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : BOOSTER SOLID ROCKET MOTOR - S_8

GENERAL DESCRIPTION : Booster Solid Rocket, 3 Configuration, Body of Revolution, Data for (1) of (2) sides, per Rockwell Lines VL77-000036 and VL72-000088

MODEL SCALE: 0.0175

DRAWING NUMBER : VL72-000088, VL77-000036

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (Includes Nozzle) - In.	1741.0	3.046
Max Width (Tank Dia.) - In.	142.0	2.485
Max Depth (Aft Shroud) - In.	205.0	3.588
Fineness Ratio	8.49268	8.49268
Area - Ft^2		
Max. Cross-Sectional	229.21	0.070
Planform		
Wetted		
Base		
BP of BSRM Centerline (Z_T) - In.	400.0	7.000
FS of BSRM Nose (X_T) - In.	200.0	3.500

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : EXTERNAL TANK WITH PROTUBERANCES - T_{15}

GENERAL DESCRIPTION External oxygen-hydrogen tank; Vehicle 3 Configuration per Rockwell Lines VL78-000041B and VL72-000088B.

MODEL SCALE: 0.0175

DRAWING NUMBER VL78-000041B, VL72-000088B

DIMENSIONS	FULL SCALE	MODEL SCALE
Length - In. (Nose @ X_T = 309)	1865	32.638
Max Width (Dia.) - In.	324	5.67
Max Depth		
Fineness Ratio	5.756	5.756
Area - Ft^2		
Max. Cross-Sectional	572.555	0.175
Planform		
Wetted		
Base		
WP of Tank Centerline (X_T) - In.	400.0	7.000

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V_7

GENERAL DESCRIPTION: Centerline vertical tail, doublewedge airfoil with rounded leading edge.

NOTE: Same as V_5, but with manipulator housing removed.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:	FULL SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo) - Ft^2		
Planform	425.92	0.0130
Span (Theo) - In.	315.72	5.525
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	0.404	0.404
Sweep-Back Angles, Degrees.		
Leading Edge	45.000	45.000
Trailing Edge	26.249	26.249
0.25 Element Line	41.130	41.130
Chords:		
Root (Theo) WP	268.50	4.699
Tip (Theo) WP	108.47	1.898
MAC	199.81	3.500
Fus. Sta. of .25 MAC	1463.50	25.611
W.P. of .25 MAC	635.522	11.122
B.L. of .25 MAC	0.00	0.00
Airfoil Section		
Leading Wedge Angle - Deg.	10.000	10.000
Trailing Wedge Angle - Deg.	14.920	14.920
Leading Edge Radius	2.0	0.035
Void Area	13.17	0.230
Blanketed Area	0.00	0.00

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TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: WING-W_{103}

GENERAL DESCRIPTION: Configuration 3 Orbiter per Lines VL70-000139.

NOTE: Same planform as W_{87} except dihedral at trailing edge.

MODEL SCALE: 0.0175

TEST NO. DWG. NO. VL70-000139

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo.) Ft^2		
Planform	2690.00	0.824
Span (Theo In.	936.68	16.392
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	3.000	3.000
Aerodynamic Twist, degrees	+ 3.000	+ 3.000
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	- 10.24	- 10.24
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.0.0.	689.24	12.062
Tip, (Theo) B.P.	137.85	2.412
MAC	474.81	8.309
Fus. Sta. of .25 MAC	1136.89	19.896
W.P. of .25 MAC	299.20	5.236
B.L. of .25 MAC	182.13	3.187
EXPOSED DATA		
Area (Theo) Ft^2	1752.29	0.537
Span, (Theo) In. BP108	720.68	12.612
Aspect Ratio	2.058	2.058
Taper Ratio	0.2451	0.2451
Chords		
Root BP108	562.40	9.842
Tip 1.00 $\frac{b}{2}$	137.85	2.412
MAC	393.03	6.878
Fus. Sta. of .25 MAC	1185.31	20.743
W.P. of .25 MAC	300.20	5.254
B.L. of .25 MAC	251.76	4.406
Airfoil Section (Rockwell Mod NASA) XXXX-64		
Root $\frac{b}{2}$ =	0.10	0.10
Tip $\frac{b}{2}$ =	0.12	0.12
Data for (1) of (2) Sides		
Leading Edge Cuff Planform Area Ft^2	120.33	0.037
Leading Edge Intersects Fus M. L. @ Sta	560.0	9.800
Leading Edge Intersects Wing @ Sta	1035.0	18.113

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TABLE III. - MODEL DIMENSIONAL DATA - Concluded.

MODEL COMPONENT: BOUNDARY LAYER TRIPS - X_{28}

GENERAL DESCRIPTION: 0.050 steel balls spot-welded to 1/4 inch wide x 0.005 shim stock. The spacing centerline to centerline is 0.15 inches. The balls were placed 3.25 inches aft of the Orbiter nose, 3.5 inches aft of the tank nose, 3.15 inches aft of the SRB nose.

Table IV. Orbiter T/C Locations
Model 22-OTS

T/C NO.	$\frac{x}{L}$	FULL SCALE x_o	FULL SCALE y	FULL SCALE z	MODEL SCALE x FROM NOSE	MODEL SCALE y	MODEL SCALE z	ϕ	SKIN THICKNESS	REMARKS
1	0	238.00	0	--	0	0	--	0	.034	BOTTOM ℄
2	.005	244.45	↑	↑	.113	↑	↑	↑	.035	↑
3	.010	250.90			.226				.035	
4	.020	263.81			.452				.032	
5	.030	276.71			.677				.033	
6	.040	289.61			.903				.034	
7	.050	302.52			1.129				.033	
8	.060	315.42			1.355				.032	
9	.070	328.32			1.581				.034	
10	.080	341.22			1.806				.035	
11	.090	354.13			2.032				.035	↓
12	.100	367.03			2.258				.034	BOTTOM ℄
13									—	OPEN
14	.120	392.84			2.710				.035	BOTTOM ℄
15	.130	405.74			2.935				.035	↑
16	.140	418.64			3.161				.035	
17	.150	431.54			3.387				.034	
18	.160	444.45			3.613				.035	
19	.170	457.35			3.839				.035	
20	.180	470.25			4.064				.035	
21	.190	483.16			4.290				.035	
22	.200	496.06			4.516				.031	
23	.225	528.32			5.081				.031	
24	.250	560.58			5.645				.033	
25	.275	592.83			6.210				.033	
26	.300	625.09			6.774				.032	
27	.325	657.35			7.339				.033	
28	.350	689.60			7.903				.020	
29	.375	721.86			8.468				.026	
30	.400	754.12			9.032				.033	
31	.425	786.38	↓	↓	9.597	↓	↓	↓	.035	↓
32	.450	818.64	0	--	10.161	0	--	0	.034	BOTTOM ℄

Table IV (Cont'd) Orbiter

T/C NO.	$\frac{x}{L}$	FULL SCALE x_o	FULL SCALE y	FULL SCALE z	MODEL SCALE (x FROM NOSE)	MODEL SCALE y	MODEL SCALE z	ϕ	SKIN THICKNESS	REMARKS
33	.475	850.89	0	--	10.726	0	--	0	.030	BOTTOM ℄
34	.500	883.15	↑	↑	11.290	↑	↑	↑	.030	↑
35	.525	915.41			11.855				.032	
36	.550	947.66			12.419				.031	
37	.575	979.92			12.984				.029	
38	.600	1012.18			13.548				.028	
39	.625	1044.44			14.113				.028	
40	.650	1076.70			14.677				.033	
41	.675	1108.95			15.242				.035	
42	.700	1141.21			15.806				.034	
43	.725	1173.47			16.371				.035	
44	.750	1205.72			16.935				.035	
45	.775	1237.98			17.500				.034	
46	.800	1270.24			18.064				.035	
47	.825	1302.50			18.624				.035	
48	.850	1334.76			19.193				.033	
49	.875	1367.01			19.758				.033	
50	.900	1399.27			20.322				.034	
51	.925	1431.53			20.887				.035	
52	.950	1463.78			21.451				.032	↓
53	.975	1496.04			22.016				.032	BOTTOM ℄
54	1.000	1528.31			22.580				.029	$\frac{x}{L}=1.008\delta_{BF}=10°$ .033
55	1.013	1541.56			22.812				.032	δ_{BF} 10° ONLY ↑
56	1.025	1560.56			23.145				.032	BF
57	1.038	1574.30			23.385			↓	.032	δ_{BF} 10° ONLY ↓
58	1.050	1592.82			23.709			0	.030	.032
59	.010	250.90			.226			180	.035	TOP ℄
60	.025	270.26			.565			↑	.035	↑
61	.050	302.52			1.129				.035	
62	.075	334.77			1.694				.033	
63	.100	367.03	↓	↓	2.258	↓	↓	↓	.033	↓
64	.125	399.29	0	--	2.823	0	--	180	.031	TOP ℄

Table IV. (Cont'd) Orbiter

T/C NO.	x/L	FULL SCALE x_o	FULL SCALE y	FULL SCALE z	MODEL SCALE x FROM NOSE	MODEL SCALE y	MODEL SCALE z	φ	SKIN THICKNESS	REMARKS
65	.150	431.54	0	--	3.387	0	--	180	.026	TOP ℄
66	.160	444.45	↑	↑	3.613	↑	↑	↑	.031	↑
67	.171	457.35			3.839				.031	
68	.180	470.25			4.064				.030	
69	.200	496.06			4.516				.033	
70	.250	560.58			5.645				.030	
71	.300	625.09			6.774				.030	
72	.400	754.12			9.032				.030	
73	.500	883.15			11.290				.030	
74	.600	1012.18			13.548				.031	
75	.700	1141.21	↓	↓	15.806	↓	↓	↓	.032	↓
76	.800	1270.24	0	--	18.064	0	--	180	.030	TOP ℄
77			29.60	478.00	WINDOW #1	0.518	8.365	--	035	TOP LEFT
78			12.80	478.00	WINDOW #1	0.224	8.365	--	.035	TOP RIGHT
79			21.20	464.97	↑	0.371	8.137	↑	.033	CENTER
80			34.40	452.00	↓	0.602	7.910		.035	BOTTOM LEFT
81			6.00	452.00	WINDOW #1	0.105	7.910		.034	BOTTOM RIGHT
82			43.20	478.00	WINDOW #2	0.756	8.365		.035	TOP LEFT
83			34.80	478.00	WINDOW #2	0.609	8.365		.035	TOP RIGHT
84			44.80	464.97	↑	0.784	8.137		.035	CENTER
85			59.20	452.00	↓	1.036	7.910	↓	.035	BOTTOM LEFT
86			40.40	452.00	WINDOW #2	0.707	7.910	--	.035	BOTTOM RIGHT
87			62.40	464.97	WINDOW #3	1.092	8.137	140	.032	CENTER
88	.100	367.03	20.00	--	2.258	0.350	--	10	.035	FUSELAGE BOTTOM SURFACE
89	.150	431.54	24.00	--	3.387	0.420	--	10	.035	↑
90	.050	302.52	25.00	↑	1.129	0.438	--	14	.033	
91	.200	496.06	25.00		4.516	0.438	↑	11.5	.031	
92	.300	625.09	25.00		6.774	0.438		12	.033	
93	.200	496.06	50.00		4.516	0.875		24	.034	
94	.300	625.09	50.00		6.774	0.875		23	.036	
95	.400	754.12	50.00	↓	9.032	0.875	↓	21.5	.026	↓
96	.500	883.15	50.00	--	11.290	0.875	--	21.5	.026	FUSELAGE BOTTOM SURFACE

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Table IV (Cont'd) Orbiter

T/C NO.	x/L	FULL SCALE x_o	FULL SCALE y	FULL SCALE z	MODEL SCALE x FROM NOSE	MODEL SCALE y	MODEL SCALE z	Φ	SKIN THICKNESS	REMARKS
97	.600	1012.18	50.00		13.548	0.875		21.5	.021	FUSELAGE SIDE
98	.700	1141.21	50.00		15.806	0.875		↑	.033	
99	.800	1270.24	50.00		18.064	0.875		↓	.033	
100	.900	1399.27	50.00		20.322	0.875		21.5	.034	FUSELAGE SIDE
101	1.000	1528.30	100.00		22.580	1.75		39	.031	BODY FLAP 10° = .034
102	1.050	1592.82	100.00		23.704	1.75		39	.028	BODY FLAP 18° = .033
103	.100	367.03	39.20		2.258	0.686		20	.033	FUSELAGE SIDE
104	.150	431.54	40.80		3.387	0.714		20	.031	
105	.050	302.52		303.60	1.129	--	5.313	22	.031	C.C.L. TANGENT
106	.100	367.03	52.00	--	2.258	0.910		24.5	.033	↕
107	.150	431.54	62.00	--	3.387	1.085	--	25.5	.031	
108	.200	496.06	65.60	287.20	4.516	1.148	5.026	31.5	.035	C.C.L. TANGENT
109	.300	625.09	74.46	--	6.774	1.303		34	.033	
110	.200	496.06	75.60	292.00	4.516	1.323	5.110	35	.030	
111	.150	431.54	79.20	304.80	3.387	1.386	5.334	40	.030	
112	.200	496.06	85.20	298.80	4.516	1.491	5.229	40	.034	
113	.300	625.09	91.43		6.774	1.600		40	.026	
114	.300	625.09	102.86		6.774	1.800		45	.023	
115	.050	302.52		325.60	1.129		5.698	35	.030	M.H.B. TANGENT
116	.100	367.03		317.60	2.258		5.558	39	.030	M.H.B. TANGENT
117	.150	431.54	83.60	314.4	3.387	1.463	5.502	45.5	.030	M.H.B. TANGENT
118	.200	496.06		320.00	4.516		5.600	51	.030	
119	.300	625.09		330.00	6.774		5.775	57.5	.021	
120	.300	625.09		340.00	6.774		5.950	61	.027	
121	.076	336.51		350.00	1.724		6.125	--	.030	RCS CENTER
122	.300	625.09		350.00	6.774		6.125	65	.026	
123	.800	1270.24		350.00	18.064		6.125	65	.017	
124	.900	1399.27		350.00	20.322		6.125	65	.033	
125	.975	1496.04		350.00	22.016		6.125	68	.034	
126	.975	1496.04		300.00	22.016		5.250	52.5	.032	
127	.050	302.52		342.40	1.129		5.992	42.5	.030	↓ TANGENT (UPPER)

Table IV (Cont'd) Orbiter

T/C NO.	$\frac{x}{L}$	FULL SCALE x_o	FULL SCALE y	FULL SCALE z	MODEL SCALE x FROM NOSE	MODEL SCALE y	MODEL SCALE z	ϕ	SKIN THICKNESS	REMARKS
128	.200	496.06	--	360.00	4.516	--	6.300	67.5	.026	FUSELAGE SIDE
129	.300	625.09	--	360.00	6.774		6.300	70	.023	
130	.600	1012.18		375.14	13.548		6.565	77	.031	
131	.050	302.52		378.40	1.129		6.622	60	.035	45° TANGENT
132	.100	367.03		410.00	2.258		7.175	119	.034	
133	.200	496.06		410.00	4.516		7.175	96.5	.028	
134	.300	625.09		430.00	6.774		7.525	106	.032	FUSELAGE SIDE
135	.400	754.12		430.00	9.032			105	.033	UPPER BODY
136	.500	883.15		430.00	11.290				.032	
137	.600	1012.18		430.00	13.548				.032	
138	.700	1141.21		430.00	15.806				.032	
139	.800	1270.24		430.00	18.064		7.525		.032	
140	.900	1399.27		370.00	20.322		6.475		.033	
141	.300	625.09		478.80	6.774		8.379	135	.031	
142	.400	754.12			9.032			135	.030	
143	.500	883.15			11.290			135	.033	
144	.600	1012.18			13.548			135	.033	
145	.700	1141.21			15.806			135	.032	
146	.600	1012.18		445.0	13.548		7.788	113	.032	
147	.600	1012.18		440.0	13.548		7.70	112	.032	
148	.750	1205.73		450.00	15.806		7.875	116	.032	
149	.750	1502.73		490.00	15.806		8.575	149	.034	UPPER BODY
150	.400	754.12			9.032			59.5	.031	WING UPPER CREASE
151	.500	883.15			11.290			63	.012	
152	.600	1012.18			13.548			65.5	.030	
153	.700	1141.21			15.806			64	.030	
154	.900	1399.27		332.0	20.322			--	.034	WING UPPER CREASE

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Table IV (Continued) Orbiter

T/C NO.	2y/b	x/c	FULL SCALE x_o	FULL SCALE y	MODEL SCALE x_o	MODEL SCALE y	SKIN THICK-NESS	REMARKS
155	.250	.025	640.650	117.085	7.043	2.049	.031	WING BOTTOM
156	↑	.153	754.120	↑	9.030	↑	.035	SURFACE
157		.299	883.150		11.288		.028	
158		.444	1012.180		13.545		.023	
159		.590	1141.200		15.802		.034	
160	↓	.736	1270.230	↓	18.060	↓	.034	
161	.250	.900	1415.900	117.085	20.613	2.049	.034	
162	.301		754.000		9.030		.023	30° ROLL DOWN
163	.348		883.000		11.288		.028	30° ROLL DOWN
164	.400	.025	1002.063	187.336	13.364	3.278	.035	
165	↑	.100	1039.750	↑	14.031	↑	.034	
166		.200	1090.000		14.900		.034	
167		.302	1141.210		15.802		.035	
168		.559	1270.230		18.060		.032	
169	↓	.700	1341.250	↓	19.307	↓	.032	
170	.400	.900	1441.750	187.336	21.065	3.278	.032	ELEVON
171	.500		1067.470	234.170	14.516	4.098	.033	30° ROLL DOWN
172	↑	.025	1077.913	↑	14.696	↑	.035	
173		.177	1141.210		15.802		.030	
174		.300	1192.450		16.706		.031	
175		.487	1270.230		18.060		.034	
176		.600	1317.428		18.895		.034	
177		.700	1359.028	↓	19.618	↓	.033	
178	↓	.900	1442.350	234.170	21.075	4.098	.033	ELEVON
179	.600	.100	1152.000	281.004	15.995	4.918	.033	
180	↑	.200	1188.00	↑	16.625	↑	.031	
181		.300	1224.000		17.255		.026	
182		.428	1270.230		18.064		.026	
183	↓	.600	1332.000	↓	19.145	↓	.027	WING BOTTOM
184	.600	.700	1368.000	281.004	19.775	4.918	.024	SURFACE

Table IV (Continued) Orbiter

T/C NO.	2y/b	x/c	FULL SCALE x_0	FULL SCALE y	MODEL SCALE x (FROM NOSE)	MODEL SCALE y	SKIN THICKNESS	REMARKS
185	.600	.800	1404.000	281.004	20.404	4.918	.035	WING BOTTOM SURFACE
186	.600	.850	1422.000	↕	20.720	↕	.033	ELEVON
187	.600	.90	1440.000	281.004	21.034	↕	.034	↕
188	.750		1186.5	351.255	16.599	6.147	.035	L.E. ROLLED
189	↕	.025	1193.428	↕	16.720	↕	.035	DOWN 30°
190	↕	.100	1214.228	↕	17.084	↕	.032	↕
191	↕	.303	1270.230	↕	18.064	↕	.032	↕
192	↕	.500	1325.028	↕	19.023	↕	.032	↕
193	↕	.700	1380.400	↕	19.992	↕	.027	↕
194	↕	.800	1408.100	↕	20.476	↕	.031	↕
195	↓	.850	1422.000	↓	20.719	↓	.035	↕
196	.750	.900	1435.800	351.255	20.962	6.147	.035	↕
197	.850	.100	1255.200	398.089	17.801	6.967	.031	↕
198	.850	.300	1299.600	398.089	18.578	6.967	.034	↕
199	.850	.500	1344.000	398.089	19.355	6.967	.032	↕
200	.900	.60	1373.028	421.506	19.863	7.376	.024	↕
201	.900	.30	1314.743	421.506	18.846	7.376	.030	↕
202	.950			444.857		7.785	.035	L.E. ROLLED 30°
203	↑	.050	1295.925	↑	18.514	↑	.035	↕
204	↕	.100	1303.828	↕	18.652	↕	.035	↕
205	↕	.300	1335.543	↕	19.207	↕	.024	↕
206	↕	.500	1367.257	↕	19.762	↕	.022	↕
207	↓	.700	1398.950	↕	20.316	↓	.035	↕
208	.950	.900	1430.650	↓	20.870	7.785	.030	↕
209	.966	0.00	1307.000	452.416	18.708	7.917	.032	L.E.
210	.993	0.00	1398.950	464.914	20.316	8.136	.031	L.E.
211	.600			281.004		4.918	.035	CLUSTER B
212	↕			↕		↕	.035	↕
213	↓			↕		↓	.035	↓
214	.600			281.004		4.918	.035	WING BOTTOM SURFACE

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Table IV (Continued) Orbiter

T/C NO.	$\frac{2y}{b}$	$\frac{x}{c}$	FULL SCALE		MODEL SCALE		SKIN THICK-NESS	REMARKS
			x_o	y	x (FROM NOSE)	y		
215	.600			281.004		4.918	.035	CLUSTER B SEE FIG. 6
216	.600			281.004		4.918	.035	
217	.600			281.004		4.918	.035	
218	.850			398.089		6.967	.020	CLUSTER C SEE FIG. 6
219	↑			↑		↑	.020	↑
220							.020	
221							.020	
222							.020	
223	↓			↓		↓	.020	↓
224	.850			398.089		6.967	.020	
225	.400	.050	1015.114	187.336	13.599	3.278	.025	WING TOP SURFACE
226	↑	.200	1090.428	↑	14.918	↑	.024	↑
227	↓	.600	1291.171	↓		↓	.033	
228	.400	.950	1466.875	187.336		3.278	.031	ELEVON
229	.600	.050	1134.886	281.004	15.696	4.918	.032	
230	.600	.200	1188.657	↑	16.637	↑	.031	
231	.600	.600	1332.028		19.146		.031	
232	↑	.800	1404.000		20.404		.032	ELEVON
233	↓	.900	1440.000	↓	21.034	↓	.034	↑
234	.600	.950	1458.000	281.004	21.349	4.918	.033	↓
235	.800	.050	1223.057	374.672	17.239	6.557	.033	
236	↑	.200	1260.257	↑	17.889	↑	.033	
237		.600	1359.514		19.627		.032	
238		.800	1408.780		20.488		.030	ELEVON
239	↓	.900	1433.690	↓	20.924	↓	.030	ELEVON
240	.800	.950	1446.145	374.672	21.192	6.557	.030	ELEVON ↓

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Table IV (Continued)

Orbiter

T/C NO.	x/L	FULL SCALE			MODEL SCALE			ϕ	SKIN THICK-NESS	REMARKS
		x_o	y	z	x (FROM NOSE)	y	z			
241	.829	1307			18.715				.026	BOTTOM CREASE OF OMS
242	.900	1399.27			20.318				.035	BOTTOM CREASE OF OMS
243	.975	1496.04			22.011				.030	BOTTOM CREASE OF OMS
244	1.000	1528.3			22.575				.034	BOTTOM OF RCS
245	1.014	1547.0			22.902				.035	BOTTOM OF RCS
246	.780	1245	95.0	474.0	17.608	1.662	8.295	127.9	.032	OMS PODS
247	.805	1276	112.9	474.0	18.173	1.976	8.295	123.8	.031	
248	.829	1307	124.5	474.0	18.715	2.179	8.295	120.8	.031	
249	.862	1350	132.6		19.460	2.320	8.295	119.1	.035	
250	.963	1480	142.5		21.740	2.494	8.295	117.5	.028	
251	1.000	1528.3	142.5		22.575	2.494	8.295	117.5	.033	
252	1.014	1547.0		474.0	22.902		8.295		.033	
253	.805	1276	105.5	488	18.173	1.846	8.540	129.5	.032	
254	.829	1307	117.0	498.7	18.715	2.048	8.727	130.0	.033	
255	.862	1350	126.5	506	19.460	2.214	8.855	130.0	.031	
256	.963	1480	134.5	513	21.740	2.354	8.978	130.0	.028	
257	1.000	1528.3		500	22.575		8.750		.031	
258	1.014	1547.0		500	22.902		8.750		.032	
259	.805	1276	95.0	494.3	18.173	1.662	8.650	135.0	.033	
260	.829	1307	95.0	511.0	18.715	1.662	8.942	139.0	.034	
261	.862	1350	95.0	521.0	19.460	1.662	9.118	142.1	.031	
262	.963	1480	95.0	530.0	21.740	1.662	9.275	144.0	.027	
263	.862	1350	65	517.5	19.460	1.138	9.056	151.2	.031	
264	.963	1480	65	527.0	21.740	1.138	9.222	153	.026	OMS PODS

Table IV (CONCLUDED) Orbiter

T/C NO.	$\frac{z}{b_v}$	$\frac{x}{c}$	FULL SCALE x_o	FULL SCALE z	MODEL SCALE x (FROM NOSE)	MODEL SCALE z	SKIN THICKNESS	REMARKS
265	.159	.100	1353.00	550.20	19.513	9.628	.030	VERTICAL TAIL
266	↑	.300	1421.51	550.20	20.361	9.628	.030	↑
267	↓	.700	1498.66	550.20	22.062	9.628	.028	
268	.299	0.00		594.40		10.402	.033	L.E.
269	↑	.100	1394.94	↑	20.246	↑	.031	
270		.300	1439.00		21.018		.031	
271		.500	1483.06		21.789		.031	
272	↓	.700	1527.11	↓	22.559	↓	.022	
273	.299	.900	1571.17	594.40	23.330	10.402	.022	
274	.532	0.00		667.96		11.689	.034	L.E.
275	↑	.100	1538.31	↑	22.755	↑	.031	
276		.300	1574.94		23.396		.032	
277		.500	1611.57		35.034		.032	
278	↓	.700	1648.14	↓	24.677	↓	.023	
279	.532	.900	1684.77	667.96	25.318	11.689	.026	
280	.765	0.00		741.53		12.977	.034	L.E.
281	.765	.100	1461.00	↑	21.403	↑	.031	
282	↑	.300	1490.14		21.912		.031	
283		.500	1519.29		22.423		.030	
284	↓	.700	1548.43	↓	22.933	↓	.024	
285	.765	.900	1577.57	741.53	23.442	12.977	.024	
286	.905	0.00		785.73		13.750	.033	L.E.
287	.905	.100	1576.49	785.73	23.424	13.750	.030	↓
288	.905	.500	1625.86	785.73	24.288	13.750	.030	VERTICAL TAIL

Table V Orbiter Left Main NOzzle T/C Locations
Model 22-OTS

T/C NO.	x FROM EXIT PLANE		ϕ_n CLOCKWISE LOOKING FORWARD
	F.S.	M.S.	SKIN THICKNESS / 0° BOTTOM ℄
301	5"	0.088	.031 / 0°
302	↓	↓	.031 / 25°
303			.031 / 45°
304			.031 / 65°
305			.031 / 90°
306			.031 / 135°
307			.031 / 315°
308	10"	0.175	.031 / 0°
309	↓	↓	.031 / 25°
310			.031 / 45°
311			.031 / 65°
312			.031 / 90°
313	15"	0.263	.031 / 0°
314	↓	↓	.031 / 45°
315			.031 / 90°
316	25"	0.438	.031 / 0°
317	↓	↓	.031 / 45°
318			.031 / 65°
319			.031 / 90°
320	45"	0.788	.031 / 45°
321			.032 / BASE PLATE
322			.034 / ↓
323			.031 /
324			.032 /

Table VI Solid Rocket Booster T/C Locations
Model 22-OTS

T/C NO.	x_s FS	x^*_{ms}	$\frac{x}{L}$	ψ	SKIN THICKNESS	REMARKS
701	200.000	0.000	0.000	90°	.022	NOSE
702	241.900	0.733	0.025	90°	.031	
703	283.800	1.467	0.050	90°	.031	
704	367.600	2.933	0.100	90°	.033	
705	870.400	11.732	0.400	90°	.029	
706	1373.200	20.531	0.700	90°	.030	
707	1507.280	22.877	0.780	90°	.030	
708	1540.800	23.464	0.800	90°	.029	
709	1708.400	26.397	0.900	90°	.031	
710	1758.680	27.277	0.930	90°	.034	
711	1859.240	29.037	0,990	90°	.036	
712	1373.200	20.531	0.700	135°	.030	
713	1708.400	26.397	0.900	135°	.030	
714	1758.680	27.277	0.930	135°	.034	
715	1859.240	29.037	0.990	135°	.035	
716	283.800	1.467	0.050	180°	.032	
717	367.600	2.933	0.100	180°	.034	
718	535.200	5.866	0.200	180°	.030	
719	870.400	11.732	0.400	180°	.030	
720	1038.000	14.665	0.500	180°	.029	
721	1205.600	17.598	0.600	180°	.030	
722	1289.400	19.065	0.650	180°	.030	
723	1373.200	20.531	0.700	180°	.029	
724	1457.000	21.998	0.750	180°	.029	
725	1507.280	22.877	0.780	180°	.030	
726	1540.800	23.464	0.800	180°	.028	
727	1624.600	24.931	0.850	180°	.028	
728	1708.400	26.397	0.900	180°	.028	
729	1758.680	27.277	0.930	180°	.032	SKIRT
730	1808.960	28.157	0.960	180°	.034	SKIRT
731	1859.240	29.037	0.990	180°	.034	SKIRT
732	1715.000	26.514	0.904	210°	.028	SEPARATION
733	1738.000	26.984	0.918	210°	.030	NOZZLES 15-5PH

*MEASURED FROM NOSE

Table VI (Continued)
(Solid Rocket Booster)

T/C NO.	x_s FS	x^*_{ms}	$\frac{x}{L}$	Ψ	SKIN THICKNESS	REMARKS
734	1750.000	27.130	0.925	210°	.032	SEPARATION NOZZLES
735	1792.200	27.864	0.950	210°	.033	15-5PH
736	1825.720	28.450	0.970	210°	.032	↓
737	1750.300	27.130	0.925	≈215°	.032	↓
738	1775.440	27.570	0.940	≈215°	.032	↓
739	1808.960	28.157	0.960	≈215°	.033	↓
740	325.700	2.200	0.075	225°	.035	
741	367.600	2.933	0.100	225°	.034	
742	451.400	4.400	0.150	225°	.032	
743	535.200	5.866	0.200	225°	.030	
744	702.800	8.799	0.300	225°	.028	
745	870.400	11.732	0.400	225°	.030	
746	1038.000	14.665	0.500	225°	.030	
747	1205.600	17.598	0.600	225°	.030	
748	1373.200	20.531	0.700	225°	.030	
749	1507.280	22.877	0.780	225°	.030	
750	1540.800	23.464	0.800	225°	.029	
751	1624.600	24.931	0.850	225°	.029	
752	1708.400	26.397	0.900	225°	.027	
753	1758.680	27.277	0.930	225°	.031	SKIRT
754	1808.960	28.157	0.960	225°	.032	↓
755	1859.240	29.037	0.990	225°	.032	↓
756	1758.68	27.277	0.930	240°	.030	↓
757	1808.960	28.157	0.960	240°	.031	↓
758	1859.240	29.037	0.990	240°	.032	↓
759	702.800	8.799	0.300	247.5°	.028	
760	870.400	11.732	0.400	247.5°	.030	
761	1038.000	14.665	0.500	247.5°	.030	
762	1205.600	17.598	0.600	247.5°	.030	
763	1289.400	19.065	0.650	247.5°	.031	
764	1373.200	20.531	0.700	247.5°	.030	
765	1457.000	21.998	0.750	247.5°	.031	
766	392.740	3.373	0.115	260°	.032	

*MEASURED FROM NOSE

Table VI (Concluded)

(Solid Rocket Booster)

T/C NO.	x_s FS	x^*_{ms}	$\frac{x}{L}$	↓	SKIN THICKNESS	REMARKS
767	203.816	0.067	0.002	270°	.035	ON 45° RAY FROM NOSE RADIUS
768	241.900	0.733	0.025	270°	.033	
769	283.800	1.467	0.050	270°	.033	
770	325.700	2.200	0.075	270°	.036	
771	367.600	2.933	0.100	270°	.036	
772	384.360	3.226	0.110	270°	.036	
773	417.880	3.813	0.130	270°	.032	
774	451.400	4.400	0.150	270°	.032	
775	535.200	5.866	0.200	270°	.030	
776	619.000	7.333	0.250	270°	.030	
777	702.800	8.799	0.300	270°	.028	
778	870.400	11.732	0.400	270°	.029	
779	1038.000	14.665	0.500	270°	.030	
780	1205.600	17.598	0.600	270°	.031	
781	1289.400	19.065	0.650	270°	.031	
782	1373.200	20.531	0.700	270°	.030	
783	1457.000	21.998	0.750	270°	.030	
784	1507.280	22.877	0.780	270°	.030	
785	1540.800	23.464	0.800	270°	.030	
786	1624.600	24.931	0.850	270°	.030	
787	1708.400	26.397	0.900	270°	.027	
788	1758.680	27.277	0.930	270°	.029	SKIRT
789	1808.960	28.157	0.960	270°	.032	↓
790	1859.240	29.037	0.990	270°	.032	
791	702.800	8.799	0.300	315°	.029	
792	1038.000	14.665	0.500	315°	.030	
793	1373.000	20.531	0.700	315°	.029	
794	1507.280	22.877	0.780	315°	.028	
795	1540.800	23.464	0.800	315°	.028	
796	1708.400	26.397	0.900	315°	.028	
797	1758.680	27.277	0.930	315°	.030	
798	1859.240	29.037	0.990	315°	.032	

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Table VII External Tank Locations

T/C NO.	x_T FS	x^*_{ms}	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
501	383.60	1.306	.040	0°	.034	NOSE
502	458.20	2.6110	.080	↑	.034	NOSE
503	588.75	4.896	.150	↕	.035	NOSE
504	1055.00	13.055	.400	↕	.035	
505	1428.00	19.582	.600	↓	.034	
506	1801.00	26.110	.800	0°	.035	
507	1055.00	13.055	.400	45°	.035	
508	1241.50	16.319	.500	↑	.035	
509	1428.00	19.582	.600	↕	.034	
510	1614.50	22.846	.700	↕	.034	
511	1801.00	26.110	.800	↓	.035	
512	1987.5	29.374	.900	45°	↕	
513	868.5	9.791	.300	67.5°		
514	961.75	11.423	.350	↑	↕	
515	1055.00	13.055	.400	↕	.035	
516	1241.50	16.319	.500	↕	.034	
517	1428.00	19.582	.600	↕	↕	
518	1521.25	21.214	.650	↕	↕	
519	1614.50	22.846	.700	↕	.034	
520	1707.75	24.478	.750	↕	.035	
521	1801.00	26.110	.800	↓	↕	
522	1987.5	29.374	.900	67.5°	↕	
523	682.00	6.528	.200	90°	↕	
524	775.25	8.159	.250	↑	↕	
525	821.88	8.975	.275	↕	↕	
526	868.50	9.791	.300	↕	↕	
527	915.12	10.607	.325	↕	↕	
528	961.75	11.423	.350	↕	.035	
529	1055.00	13.055	.400	↕	.034	
530	1148.25	14.687	.450	↕	.035	
531	1241.5	16.319	.500	↕	.034	
532	1334.75	17.951	.550	↓	.035	
533	1428.00	19.582	.600	90°	.034	

*MEASURED FROM NOSE

Table VII (Continued)
(External Tank)

T/C NO.	x_T FS	x^*_{ms}	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
534	1521.25	21.214	.650	90°	.034	
535	1614.50	22.846	.700		.034	
536	1707.75	24.478	.750		.035	
537	1801.00	26.110	.800		.035	
538	1894.25	27.742	.850		.034	
539	1987.50	29.374	.900	90°		
540	821.88	8.975	.275	112.5°	.035	
541	868.50	9.791	.300			
542	915.12	10.607	.325			
543	961.75	11.423	.350			
544	1055.00	13.055	.400			
545	1148.25	14.687	.450		.035	
546	1241.50	16.319	.500		.034	
547	1334.75	17.951	.550		.035	
548	1428.00	19.582	.600		.034	
549	1521.25	21.214	.650		.034	
550	1614.50	22.846	.700		.034	
551	1707.75	24.478	.750		.035	
552	1801.00	26.110	.800			
553	1894.25	27.742	.850			
554	1987.50	29.374	.900	112.5°	.035	
555	1847.62	26.926	.825	123°	.034	
556	1894.25	27.742	.850		.035	
557	1940.88	28.558	.875		.034	
558	1987.50	29.374	.900		.035	
559	2034.12	30.190	.925		.035	
560	2099.40	31.332	.960	123°	.034	
561	915.12	10.607	.325	135°	.035	
562	961.75	11.423	.350			
563	1008.38	12.239	.375			
564	1055.00	13.055	.400			
565	1148.25	14.687	.450		.035	
566	1241.50	16.319	.500		.034	
567	1334.75	17.951	.550		.035	
568	1428.00	19.582	.600		.034	
569	1521.25	21.214	.650	135°	.034	

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Table VII (Continued)
(External Tank)

T/C NO.	x_T FS	x^*_{ms}	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
570	1614.50	22.846	.700	135°	.035	
571	1707.75	24.478	.750	↑	.034	
572	1801.00	26.110	.800		.035	
573	1894.25	27.742	.850		.034	
574	1987.50	29.374	.900	↓	.035	
575	2052.78	30.576	.935	135°		
576	1055.00	13.055	.400	151	.035	
577	1101.62	13.871	.425	157	↕	
578	1148.25	14.687	.450	↑		
579	1194.88	15.503	.475		.035	
580	1241.50	16.319	.500		.034	
581	1334.75	17.951	.550		.035	
582	1428.00	19.582	.600		.034	
583	1521.25	21.214	.650		.034	
584	1614.50	22.846	.700		.035	
585	1707.75	24.478	.750		.035	
586	1801.00	26.110	.800		.035	
587	1894.25	27.742	.850	↓	.034	
588	1987.50	29.374	.900	157	.034	
589	1101.62	13.871	.425	161	.035	
590	1241.50	16.319	.500	165°	.034	
591	1614.50	22.846	.700	165°	.035	
592	1987.50	29.374	.900	165°	.034	
593	1055.00	13.055	.400	165°	.035	
594	309.00	0.000	0.000	180	.033	NOSE
595	318.32	0.163	.005	↑	.033	↕
596	327.65	0.326	.010		.034	
597	383.60	1.306	.040	↓	.033	
598	458.20	2.611	.080	180°	.035	

*MEASURED FROM NOSE

Table VII (CONTINUED
(External Tank)

T/C NO.	x_T FS	x^*_{ms}	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
599	588.75	4.896	.150	180°	.035	
600	682.00	6.528	.200		.034	
601	775.25	8.159	.250		.035	
602	868.50	9.791	.300			
603	961.75	11.423	.350			
604	1008.38	12.239	.375		.035	
605	1055.00	13.055	.400		.034	
606	1101.62	13.871	.425			
607	1148.25	14.687	.450			
608	1194.88	15.503	.475			
609	1241.50	16.319	.500		.034	
610	1288.12	17.135	.525		.035	
611	1334.75	17.951	.550		.035	
612	1381.38	18.767	.575		.034	
613	1428.00	19.582	.600			
614	1474.62	20.398	.625			
615	1521.25	21.214	.650			
616	1567.88	22.030	.675			
617	1614.50	22.846	.700		.034	
618	1707.75	24.478	.750		.035	
619	1801.00	26.110	.800		.035	
620	1894.25	27.742	.850		.035	
621	1987.5	29.374	.900		.034	
622	2056.50	30.581	.937		.034	
623	2127.38	31.822	.975	180°	.034	
624	458.20	2.611	.080	194°	.035	
625	587.75	4.896	.150	196°	.035	
626	868.50	9.791	.300	196°	.035	

*MEASURED FROM NOSE

Table VII (Concluded)

(External Tank)

T/C NO.	x_T FS	x^*_{ms}	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
627	1241.50	16.319	.500	196°	.034	
628	1614.50	22.846	.700	196°	.034	
629	1987.50	29.374	.900	197°	.034	
630	588.75	4.896	.150	208°	.033	
631	1055.00	13.055	.400	↑	.034	
632	1428.00	19.582	.600	↕	.035	
633	1801.00	26.110	.800	↓	.035	
634	2056.50	30.581		208	.035	
635	1055.00	13.055	.400	216°	.034	
636	1241.50	16.319	.500	216°	.034	
637	1614.50	22.846	.700	216°	.034	
638	933.78	10.934	.335	222.5°	.036	
639	1055.00	13.055	.400	229°	.034	
640	1428.00	19.582	.600	229°	.035	
641	1801.00	26.110	.800	229°	.035	

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TABLE VIII

(a) Thermocouple Schedule No. X1

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
1	1	48	26	91	51
2	2	50	27	92	52
3	3	52	28	93	53
4	4	54	29	94	54
6	5	56	30	95	55
8	6	58	31	96	56
10	7	59	32	97	57
12	8	60	33	98	58
14	9	61	34	99	59
16	10	62	35	100	60
18	11	63	36	101	61
20	12	64	37	102	62
22	13	65	38	104	63
24	14	66	39	105	64
26	15	67	40	111	65
28	16	68	41	115	66
30	17	69	42	116	67
32	18	71	43	134	68
34	19	72	44	135	69
36	20	74	45	150	70
38	21	79	46	155	71
40	22	84	47	156	72
42	23	87	48	157	73
44	24	88	49	158	74
46	25	90	50	159	75

TABLE VIII + Continued.

(b) Thermocouple Schedule No. X2

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
160	1	187	26	214	51
161	2	188	27	215	52
162	3	189	28	216	53
163	4	190	29	218	54
164	5	191	30	219	55
165	6	192	31	220	56
166	7	193	32	221	57
167	8	196	33	222	58
168	9	197	34	229	59
169	10	198	35	230	60
170	11	199	36	232	61
171	12	200	37	234	62
172	13	201	38	246	63
173	14	202	39	247	64
174	15	203	40	274	65
175	16	204	41	275	66
176	17	205	42	276	67
177	18	206	43	277	68
178	19	207	44	278	69
179	20	208	45	279	70
180	21	209	46	280	71
181	22	210	47	281	72
182	23	211	48	282	73
183	24	212	49	283	74
184	25	213	50	284	75

TABLE VIII - Continued.

(c) Thermocouple Schedule No. X3

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
5	1	57	26	119	51
7	2	70	27	120	52
9	3	73	28	121	53
11	4	75	29	122	54
15	5	76	30	123	55
17	6	77	31	124	56
19	7	78	32	125	57
21	8	80	33	126	58
23	9	81	34	127	59
25	10	82	35	128	60
27	11	83	36	129	61
29	12	85	37	130	62
31	13	86	38	131	63
33	14	89	39	132	64
35	15	103	40	133	65
37	16	106	41	136	66
39	17	107	42	137	67
41	18	108	43	138	68
43	19	109	44	139	69
45	20	110	45	140	70
47	21	112	46	141	71
49	22	113	47	142	72
51	23	114	48	143	73
53	24	117	49	144	74
55	25	118	50	145	75

TABLE VIII - Continued.

(d) Thermocouple Schedule No. X4

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
146	1	239	26	266	51
147	2	240	27	267	52
148	3	241	28	268	53
149	4	242	29	269	54
151	5	243	30	270	55
152	6	244	31	271	56
153	7	245	32	272	57
154	8	248	33	273	58
185	9	249	34	286	59
186	10	250	35	287	60
194	11	251	36	501	61
195	12	252	37	502	62
217	13	253	38	503	63
223	14	254	39	504	64
224	15	255	40	505	65
225	16	256	41	506	66
226	17	257	42	507	67
227	18	258	43	508	68
228	19	259	44	509	69
231	20	260	45	510	70
233	21	261	46	511	71
235	22	262	47	512	72
236	23	263	48	513	73
237	24	264	49	514	74
238	25	265	50	515	75

TABLE VIII - Continued.

(e) Thermocouple Schedule No. X5

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
516	1	541	26	566	51
517	2	542	27	567	52
518	3	543	28	568	53
519	4	544	29	569	54
520	5	545	30	570	55
521	6	546	31	571	56
522	7	547	32	572	57
523	8	548	33	573	58
524	9	549	34	574	59
525	10	550	35	575	60
526	11	551	36	576	61
527	12	552	37	577	62
528	13	553	38	578	63
529	14	554	39	579	64
530	15	555	40	580	65
531	16	556	41	581	66
532	17	557	42	582	67
533	18	558	43	583	68
534	19	559	44	584	69
535	20	560	45	585	70
536	21	561	46	586	71
537	22	562	47	587	72
538	23	563	48	588	73
539	24	564	49	589	74
540	25	565	50	590	75

TABLE VIII - Continued.

(f) Thermocouple Schedule No. X6

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
591	1	616	26	752	51
592	2	617	27	759	52
593	3	618	28	792	53
594	4	619	29	636	54
595	5	620	30	637	55
596	6	621	31	638	56
597	7	622	32	639	57
598	8	623	33	640	58
599	9	624	34	641	59
600	10	625	35	Open	60
601	11	626	36	701	61
602	12	627	37	702	62
603	13	628	38	703	63
604	14	629	39	704	64
605	15	630	40	705	65
606	16	631	41	708	66
607	17	632	42	709	67
608	18	633	43	710	68
609	19	634	44	711	69
610	20	635	45	714	70
611	21	706	46	715	71
612	22	707	47	716	72
613	23	713	48	717	73
614	24	744	49	718	74
615	25	749	50	719	75

TABLE VIII - Continued.

(g) Thermocouple Schedule No. X7

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
720	1	753	26	784	51
721	2	754	27	785	52
722	3	755	28	787	53
723	4	756	29	788	54
724	5	757	30	789	55
725	6	758	31	790	56
726	7	760	32	791	57
728	8	762	33	793	58
729	9	766	34	797	59
730	10	767	35	798	60
731	11	768	36	712	61
732	12	769	37	727	62
733	13	770	38	746	63
734	14	771	39	748	64
735	15	772	40	750	65
736	16	773	41	751	66
737	17	774	42	761	67
738	18	775	43	763	68
739	19	776	44	764	69
740	20	777	45	765	70
741	21	778	46	780	71
742	22	779	47	786	72
743	23	781	48	794	73
745	24	782	49	795	74
747	25	783	50	796	75

TABLE VIII - Continued.

(h) Thermocouple Schedule No. X8

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
501	1	526	26	551	51
502	2	527	27	552	52
503	3	528	28	553	53
504	4	529	29	554	54
505	5	530	30	555	55
506	6	531	31	556	56
507	7	532	32	557	57
508	8	533	33	558	58
509	9	534	34	559	59
510	10	535	35	560	60
511	11	536	36	561	61
512	12	537	37	562	62
513	13	538	38	563	63
514	14	539	39	564	64
515	15	540	40	565	65
516	16	541	41	566	66
517	17	542	42	567	67
518	18	543	43	568	68
519	19	544	44	569	69
520	20	545	45	570	70
521	21	546	46	571	71
522	22	547	47	572	72
523	23	548	48	573	73
524	24	549	49	574	74
525	25	550	50	575	75

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TABLE VIII - Continued.

(i) Thermocouple Schedule No. X9

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
576	1	601	26	626	51
577	2	602	27	627	52
578	3	603	28	628	53
579	4	604	29	629	54
580	5	605	30	630	55
581	6	606	31	631	56
582	7	607	32	632	57
583	8	608	33	633	58
584	9	609	34	634	59
585	10	610	35	635	60
586	11	611	36	636	61
587	12	612	37	637	62
588	13	613	38	638	63
589	14	614	39	639	64
590	15	615	40	640	65
591	16	616	41	641	66
592	17	617	42	Open	67
593	18	618	43	Open	68
594	19	619	44	Open	69
595	20	620	45	Open	70
596	21	621	46	Open	71
597	22	622	47	Open	72
598	23	623	48	Open	73
599	24	624	49	Open	74
600	25	625	50	Open	75

TABLE VIII - Continued.

(j) Thermocouple Schedule No. X10

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
701	1	731	26	768	51
702	2	732	27	769	52
703	3	733	28	770	53
704	4	734	29	771	54
705	5	735	30	772	55
708	6	736	31	773	56
709	7	737	32	774	57
710	8	738	33	775	58
711	9	739	34	776	59
714	10	740	35	777	60
715	11	741	36	778	61
716	12	742	37	779	62
717	13	743	38	781	63
718	14	745	39	782	64
719	15	747	40	783	65
720	16	753	41	784	66
721	17	754	42	785	67
722	18	755	43	787	68
723	19	756	44	788	69
724	20	757	45	789	70
725	21	758	46	790	71
726	22	760	47	791	72
728	23	762	48	793	73
729	24	766	49	797	74
730	25	767	50	798	75

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TABLE VIII - Continued.

(k) Thermocouple Schedule No. XII

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
37	1	106	26	521	51
39	2	107	27	522	52
41	3	108	28	523	53
43	4	109	29	524	54
45	5	110	30	525	55
47	6	129	31	526	56
49	7	130	32	527	57
51	8	131	33	528	58
53	9	132	34	529	59
Open	10	133	35	530	60
Open	11	136	36	531	61
70	12	137	37	532	62
73	13	138	38	533	63
75	14	139	39	534	64
76	15	140	40	535	65
77	16	141	41	536	66
78	17	142	42	537	67
80	18	143	43	538	68
81	19	144	44	539	69
82	20	145	45	540	70
83	21	516	46	541	71
85	22	517	47	542	72
86	23	518	48	543	73
89	24	519	49	544	74
103	25	520	50	545	75

TABLE VIII - Continued.

(1) Thermocouple Schedule No. X12

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
146	1	239	26	266	51
147	2	240	27	267	52
148	3	241	28	268	53
149	4	242	29	269	54
151	5	243	30	270	55
152	6	244	31	271	56
153	7	245	32	272	57
154	8	248	33	273	58
185	9	249	34	286	59
186	10	250	35	287	60
194	11	251	36	701	61
195	12	252	37	702	62
217	13	253	38	703	63
223	14	254	39	704	64
224	15	255	40	705	65
225	16	256	41	708	66
226	17	257	42	709	67
227	18	258	43	710	68
228	19	259=	44	711	69
231	20	260	45	714	70
233	21	261	46	715	71
235	22	262	47	716	72
236	23	263	48	717	73
237	24	264	49	718	74
238	25	265	50	719	75

TABLE VIII - Concluded.

(m) Thermocouple Schedule No. X13

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
546	1	586	26	611	51
547	2	587	27	612	52
548	3	588	28	613	53
549	4	589	29	614	54
550	5	590	30	615	55
551	6	591	31	616	56
552	7	592	32	617	57
553	8	593	33	618	58
554	9	594	34	619	59
555	10	595	35	620	60
556	11	596	36	621	61
557	12	597	37	622	62
558	13	598	38	623	63
559	14	599	39	624	64
560	15	600	40	625	65
576	16	601	41	626	66
577	17	602	42	627	67
578	18	603	43	628	68
579	19	604	44	629	69
580	20	605	45	630	70
581	21	606	46	631	71
582	22	607	47	632	72
583	23	608	48	633	73
584	24	609	49	634	74
585	25	610	50	635	75

TABLE IX.
RUN NUMBER/TUNNEL CONDITION SUMMARY

Run #	Re_∞ 10^6/ft	PT lb/in^2	TT °R	HT BTU/lbm
3	1.6836	134.84	1290.9	315.17
4	1.4477	126.22	1361.4	333.35
5	1.4387	120.49	1327.6	324.61
6	1.4437	120.67	1326.0	324.19
7	1.4590	120.12	1313.4	320.97
8	1.4747	120.31	1305.9	319.04
9	1.4622	120.12	1311.7	320.52
10	4.9470	406.24	1311.3	320.43
11	4.9525	404.51	1308.9	319.81
12	5.2494	404.23	1259.4	307.10
13	4.6685	404.05	1355.2	331.74
14	5.0172	404.96	1297.2	316.80
15	5.0054	404.78	1298.8	317.20
16	4.8190	397.18	1314.3	321.20
19	4.8670	405.98	1324.3	323.76
20	5.1112	403.68	1279.6	312.28
21	4.9160	405.51	1315.0	321.38
22	5.2780	405.64	1257.8	306.70
23	5.1233	405.33	1281.0	312.63
24	5.1423	405.33	1278.0	311.87
25	4.9430	400.76	1300.9	317.73
26	4.9983	404.42	1299.2	317.30
27	4.8679	404.42	1320.9	322.90
28	5.1244	406.63	1283.4	313.26
29	4.5597	402.53	1372.1	336.10
30	4.9941	405.72	1302.5	318.16
31	4.8403	404.26	1325.3	324.03
32	4.8777	402.22	1314.8	321.31
33	1.5445	121.10	1273.7	310.77
34	1.5245	126.88	1322.4	323.29
35	1.5333	117.56	1255.9	306.22
36	1.5105	126.70	1328.9	324.94
37	1.5943	126.99	1286.5	314.04
38	1.5416	120.78	1273.1	310.62
39	1.5033	120.23	1289.7	314.88
41	4.8771	405.51	1321.6	323.07
42	5.3537	422.15	1278.3	311.94
43	4.9191	400.40	1304.1	318.56
44	4.9551	393.82	1284.7	313.58
45	5.0179	399.67	1286.4	314.02
46	5.0863	405.41	1287.2	314.23
47	5.1460	405.93	1278.6	312.03

TABLE IX.
(CONTINUED)

Run #	Re_∞ 10^6/ft	PT lb/in^2	TT °R	HT BTU/lbm
48	4.8332	405.69	1329.5	325.10
49	4.9404	405.51	1310.9	320.33
50	5.0288	405.33	1296.1	316.50
51	4.8435	402.77	1321.7	323.10
52	5.0017	405.49	1300.8	317.72
53	3.7802	865.75	1479.2	364.02
54	3.5551	863.00	1530.7	377.56
55	3.8920	869.41	1457.6	358.36
56	3.6179	870.10	1522.4	375.36
57	3.4846	870.10	1556.2	384.29
58	3.6912	868.03	1502.4	370.12
59	6.6853	1635.22	1537.5	379.36
60	6.7733	1595.85	1504.1	370.56
62	6.8605	1641.02	1571.5	374.09
63	6.9870	1641.71	1501.7	369.93
64	7.3529	1657.28	1465.3	360.38
65	6.6534	1635.44	1542.0	380.53
66	6.7145	1633.03	1532.4	378.01
67	6.5520	1632.65	1554.3	383.79
68	6.7905	1643.67	1528.2	376.88
69	7.0178	1640.92	1497.4	368.79
70	6.8106	1648.45	1528.1	376.87
71	6.8692	1646.06	1519.2	374.51
72	6.7892	1648.49	1530.9	377.62
73	4.7615	397.33	1324.6	323.84
74	5.3867	405.72	1241.9	302.63
75	5.0705	403.45	1285.6	313.81
76	4.8762	403.34	1317.3	321.96
77	1.4781	120.96	1308.5	319.69
78	1.5313	121.51	1283.4	313.25
79	1.5025	121.33	1297.6	316.89
80	1.4894	121.47	1305.7	318.97
81	5.2368	405.74	1264.2	308.35
82	5.046	401.80	1286.2	313.97
83	1.4368	120.76	1330.5	325.37
84	1.6061	130.47	1302.4	318.14
85	1.3937	115.98	1322.3	323.25
86	4.9140	406.74	1317.9	322.10
87	4.9737	406.56	1307.5	319.45
88	4.9979	406.48	1303.4	318.39
89	4.8713	405.82	1323.2	323.49
90	1.2944	105.11	1302.1	318.06
91	5.0305	406.27	1297.7	316.92

TABLE IX.
(CONCLUDED)

Run #	Re_∞ 10^6/ft	PT lb/in^2	TT °R	HT BTU/lbm
92	4.9490	405.28	1309.0	319.84
93	5.3241	403.21	1246.2	303.73
94	5.0158	403.54	1294.6	316.12
95	5.2283	405.90	1265.8	308.76
96	5.0700	405.54	1289.8	314.91
97	5.1445	405.35	1277.7	311.79
98	5.0579	405.46	1291.6	315.37
99	1.5562	120.55	1264.1	308.31
100	1.4682	121.10	1314.9	321.36
101	1.4366	120.19	1326.7	324.39
102	1.4599	121.87	1325.0	323.93
103	1.4788	121.65	1312.7	320.79
104	5.3870	395.61	1222.2	297.61
106	5.4448	404.73	1231.6	300.01
107	4.9393	403.97	1308.0	319.57
108	1.4498	122.79	1337.0	327.03
109	1.4012	118.76	1337.6	327.19
111	1.4385	121.33	1333.5	326.13

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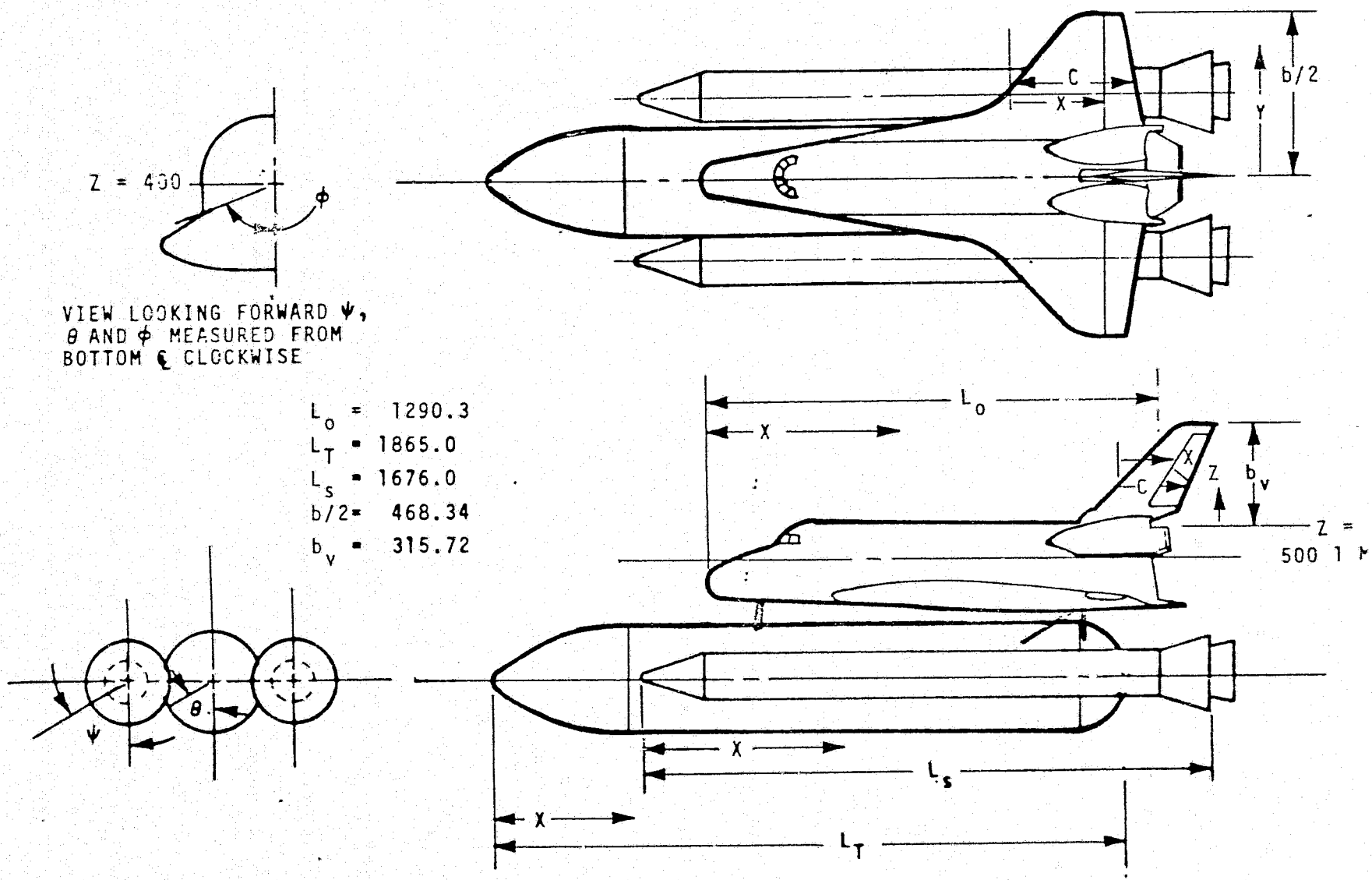
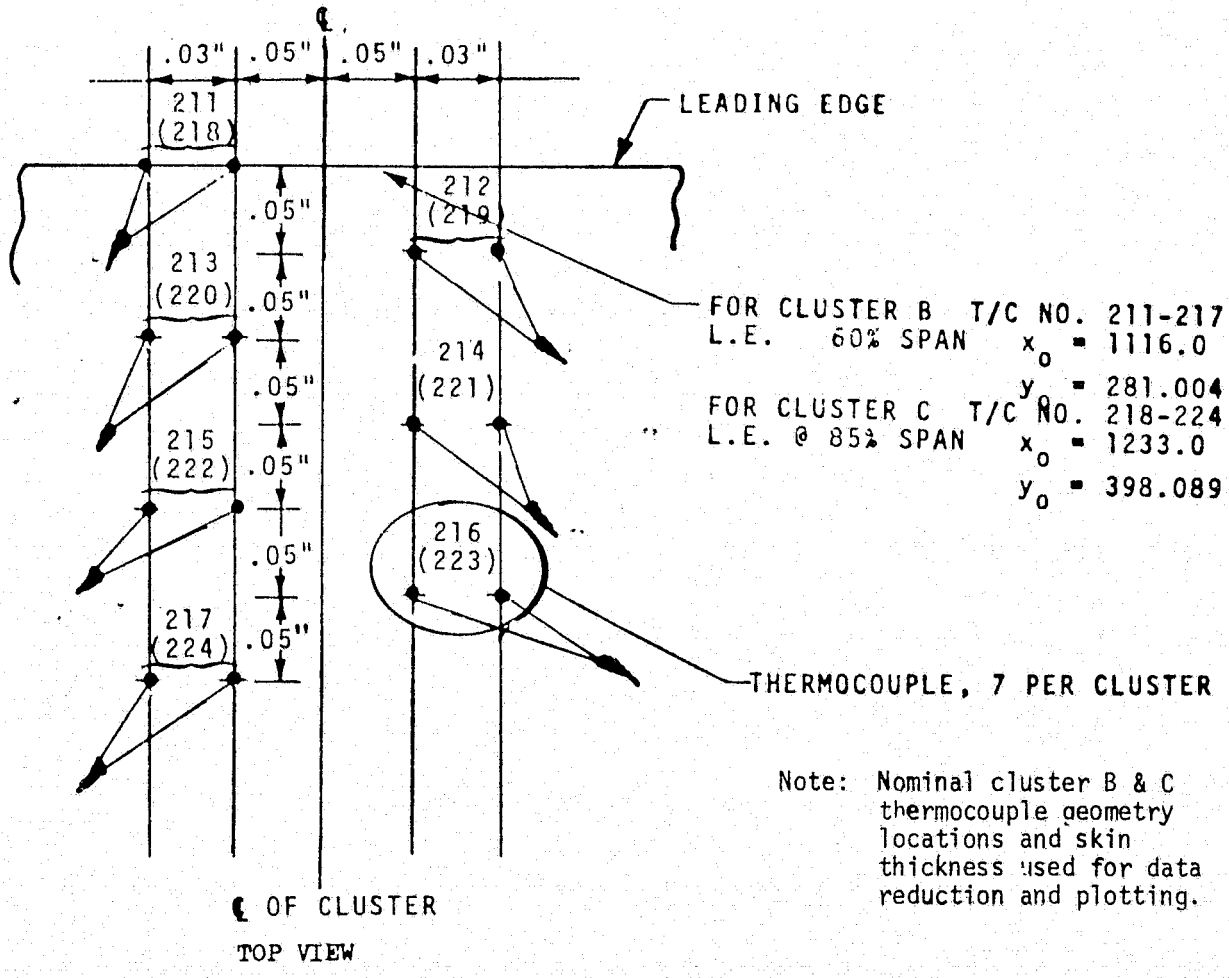
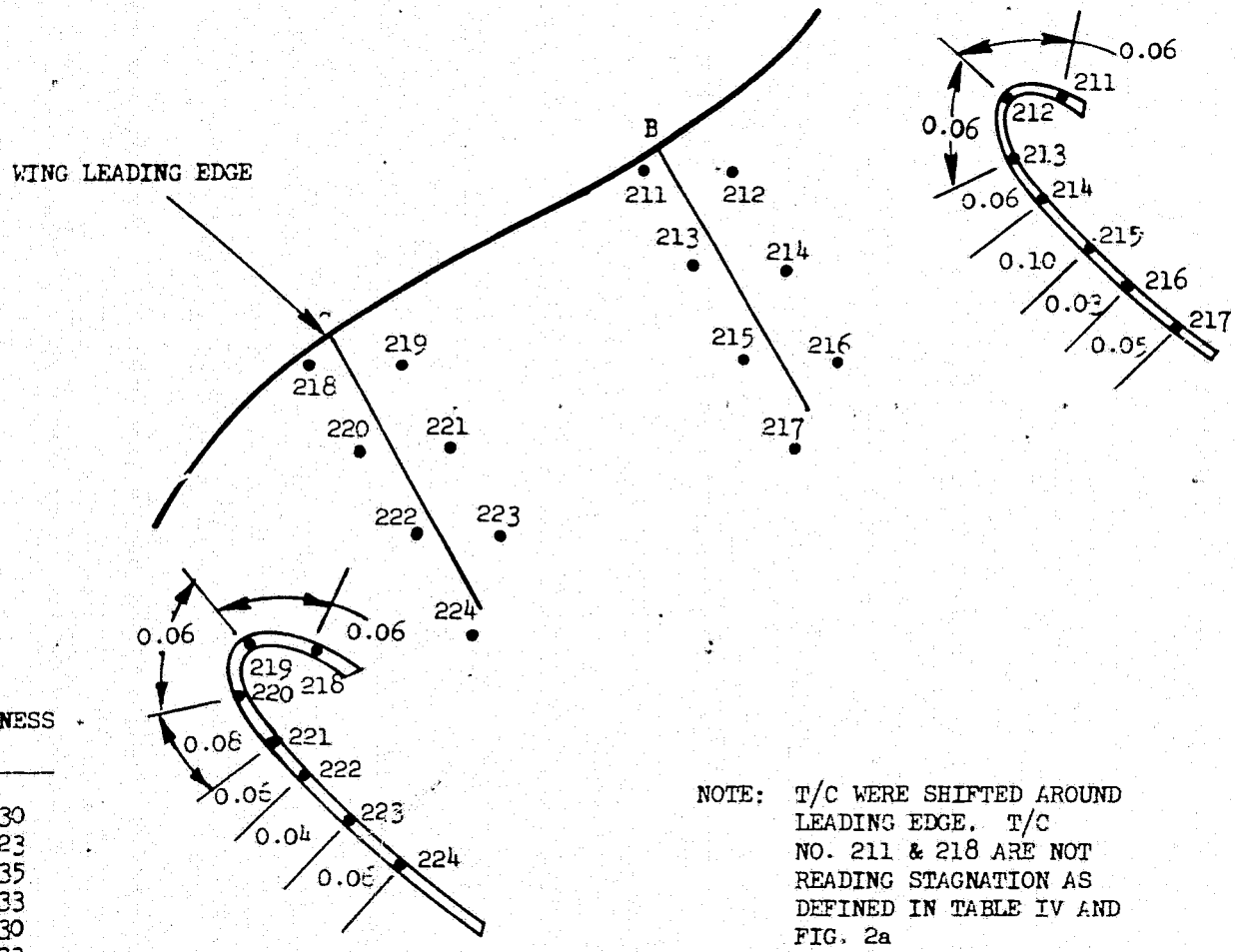


Figure 1. - Model instrumentation location system.



a. 22-OTS wing leading-edge cluster B & C nominal thermocouple locations

Figure 2. - Model sketches.

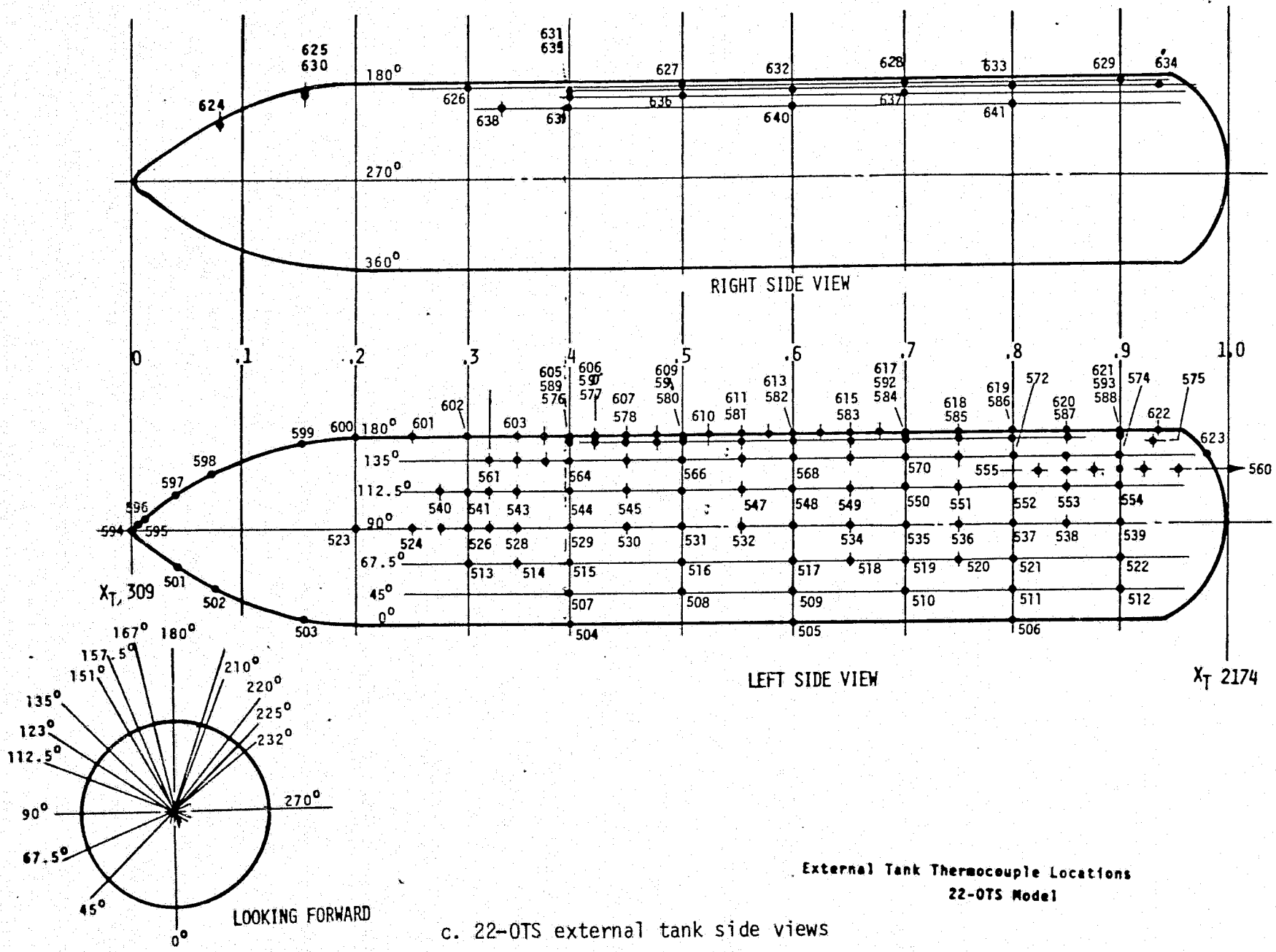


T/C No.	THICKNESS
211	0.030
212	0.023
213	0.035
214	0.033
215	0.030
216	0.033
217	0.032
218	0.040
219	0.032
220	0.052
221	0.040
222	0.033
223	0.034
224	0.032

NOTE: T/C WERE SHIFTED AROUND LEADING EDGE. T/C NO. 211 & 218 ARE NOT READING STAGNATION AS DEFINED IN TABLE IV AND FIG. 2a

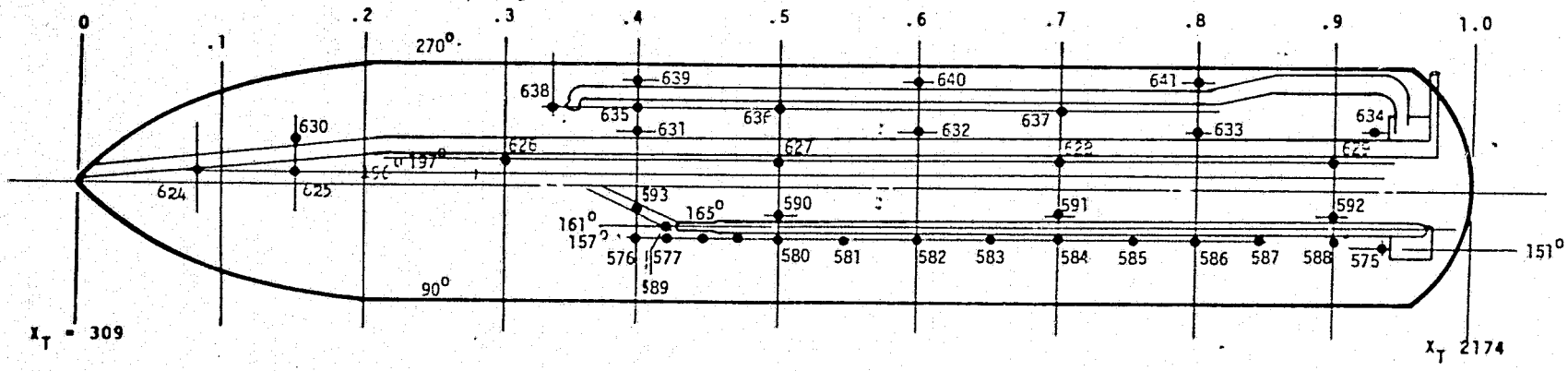
b. 22-OTS wing leading-edge clusters B & C actual thermocouple locations and skin thicknesses

Figure 2. - Continued.



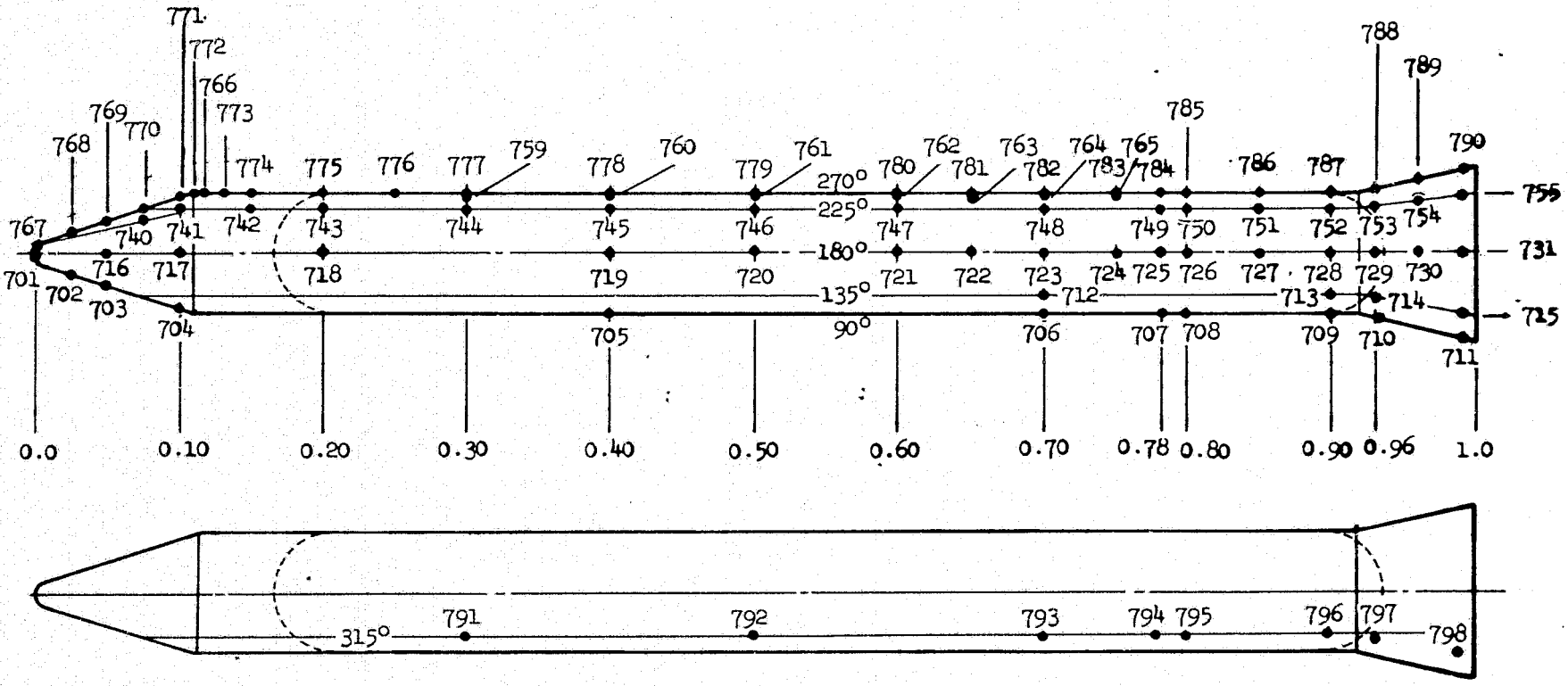
c. 22-OTS external tank side views

Figure 2. - Continued.



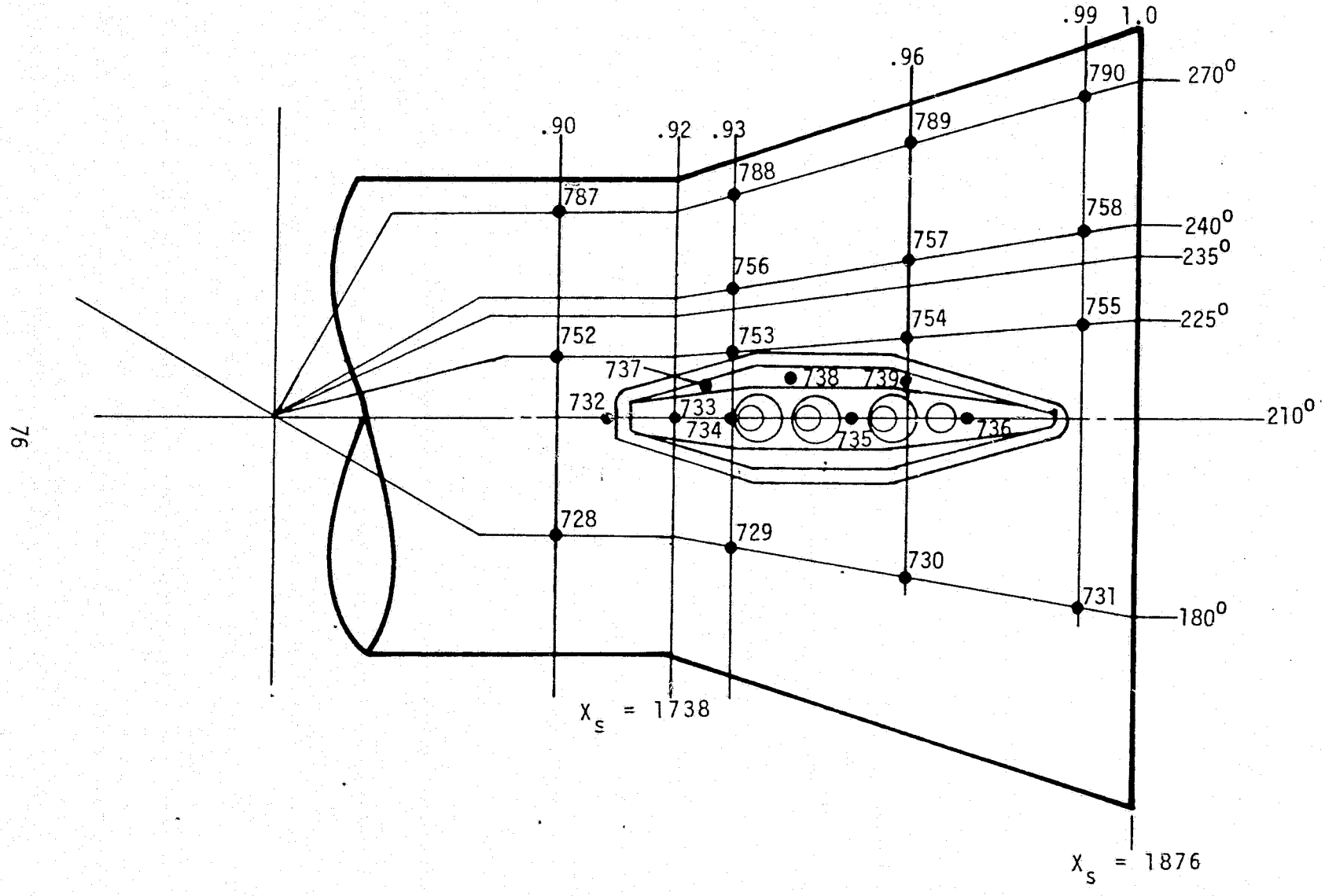
d. 22-OTS external tank top view

Figure 2. - Continued.



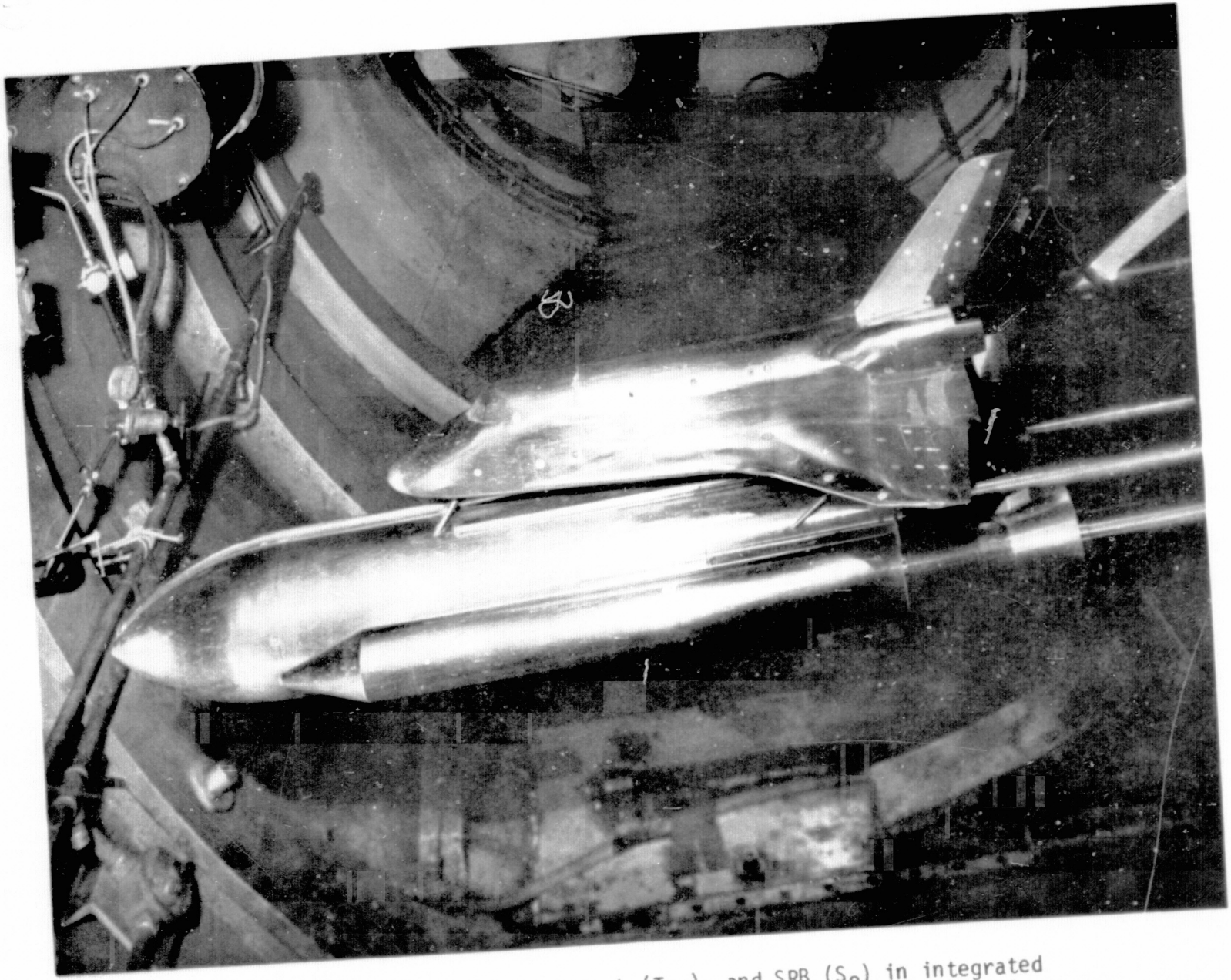
e. 22-OTS SRB

Figure 2. - Continued.



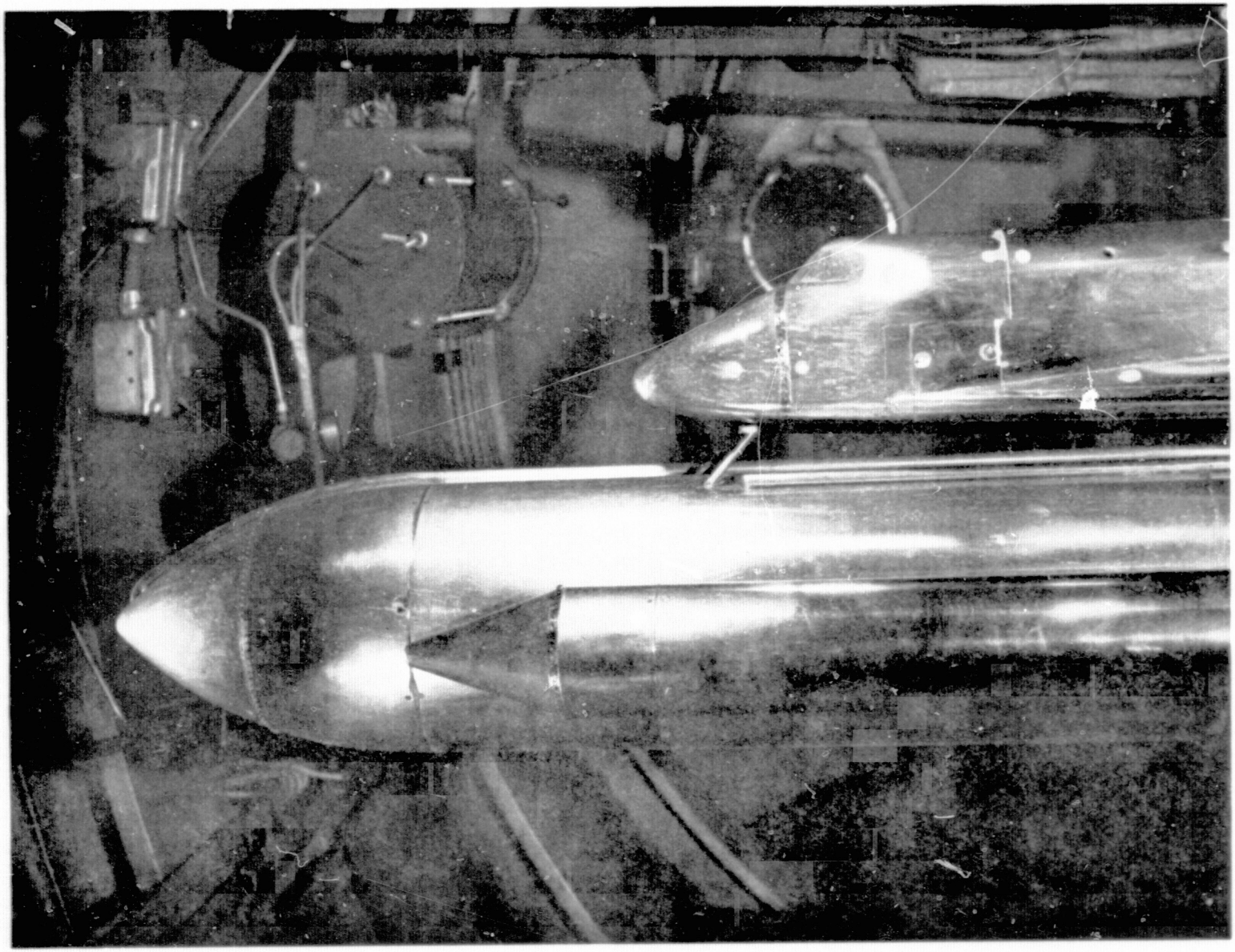
f. 22-OTS SRB skirt detail

Figure 2. - Concluded.



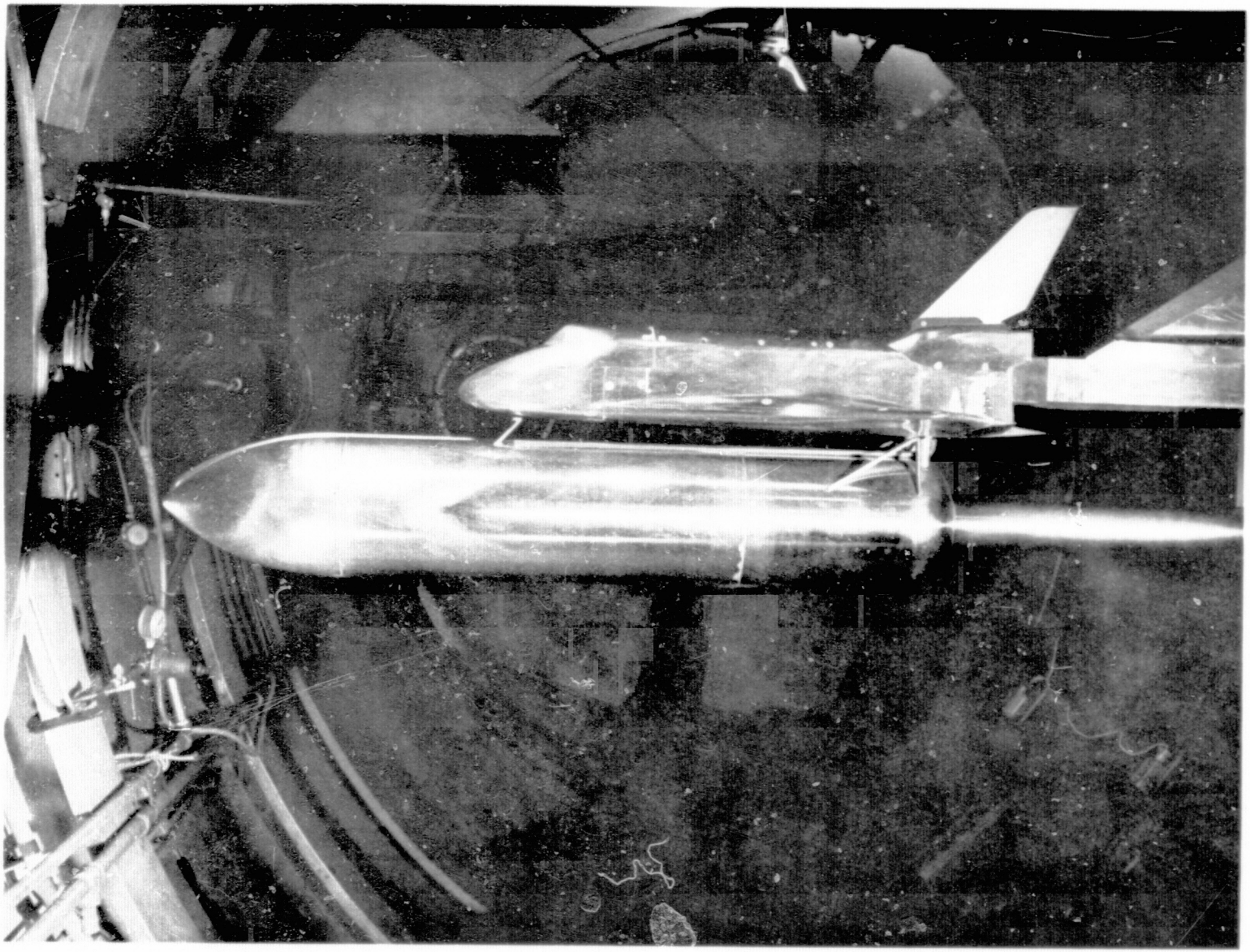
a. Orbiter (O_1), external tank (T_{15}), and SRB (S_8) in integrated configuration without boundary-layer trips; $\alpha = -5°$, $\beta = 0°$.

Figure 3. - Model photographs.



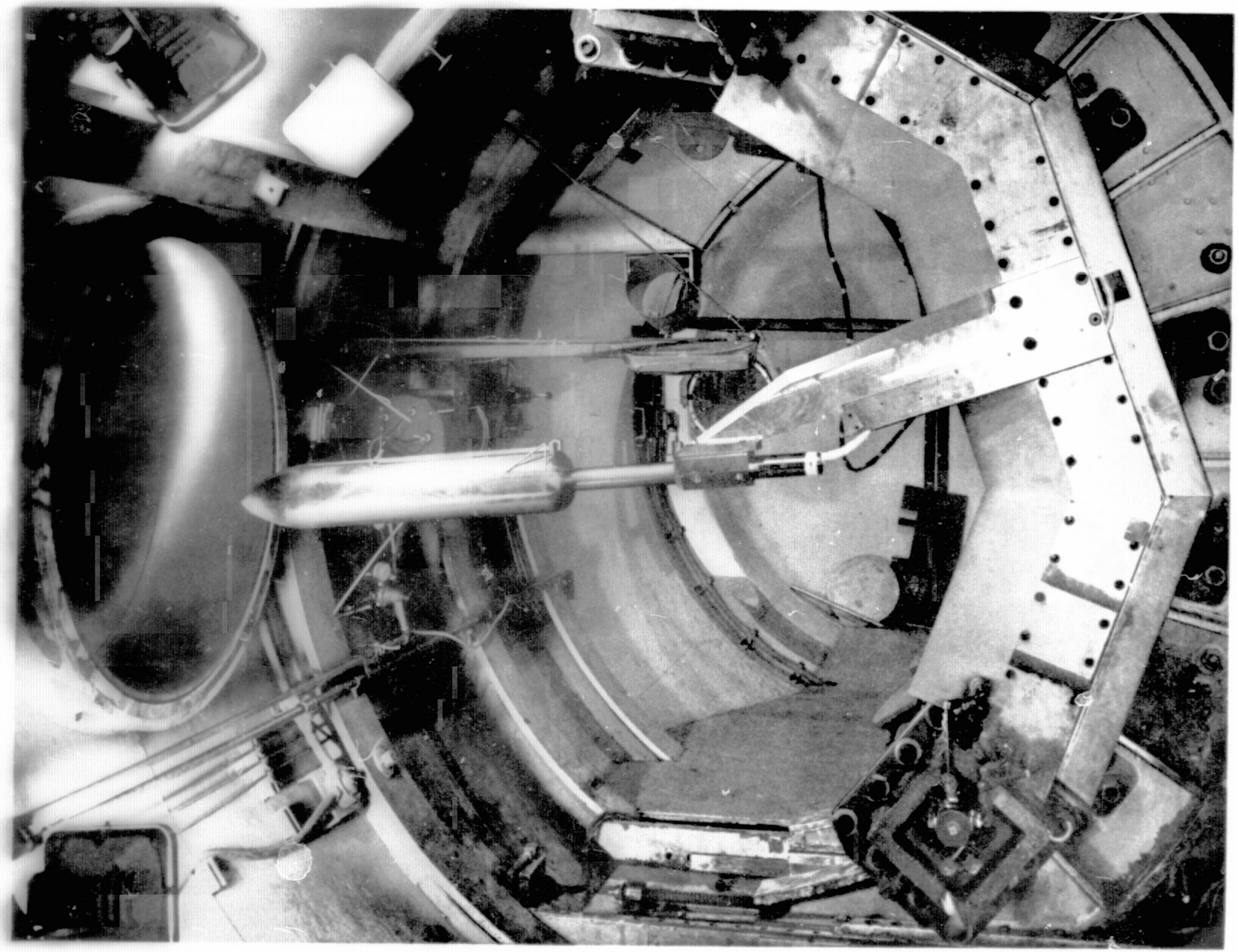
b. Orbiter (O_1), external tank (T_{15}), and SRB (S_8) in integrated configuration with boundary-layer trips;(X_{28}) α = -5°, β = 0°

Figure 3. - Continued.



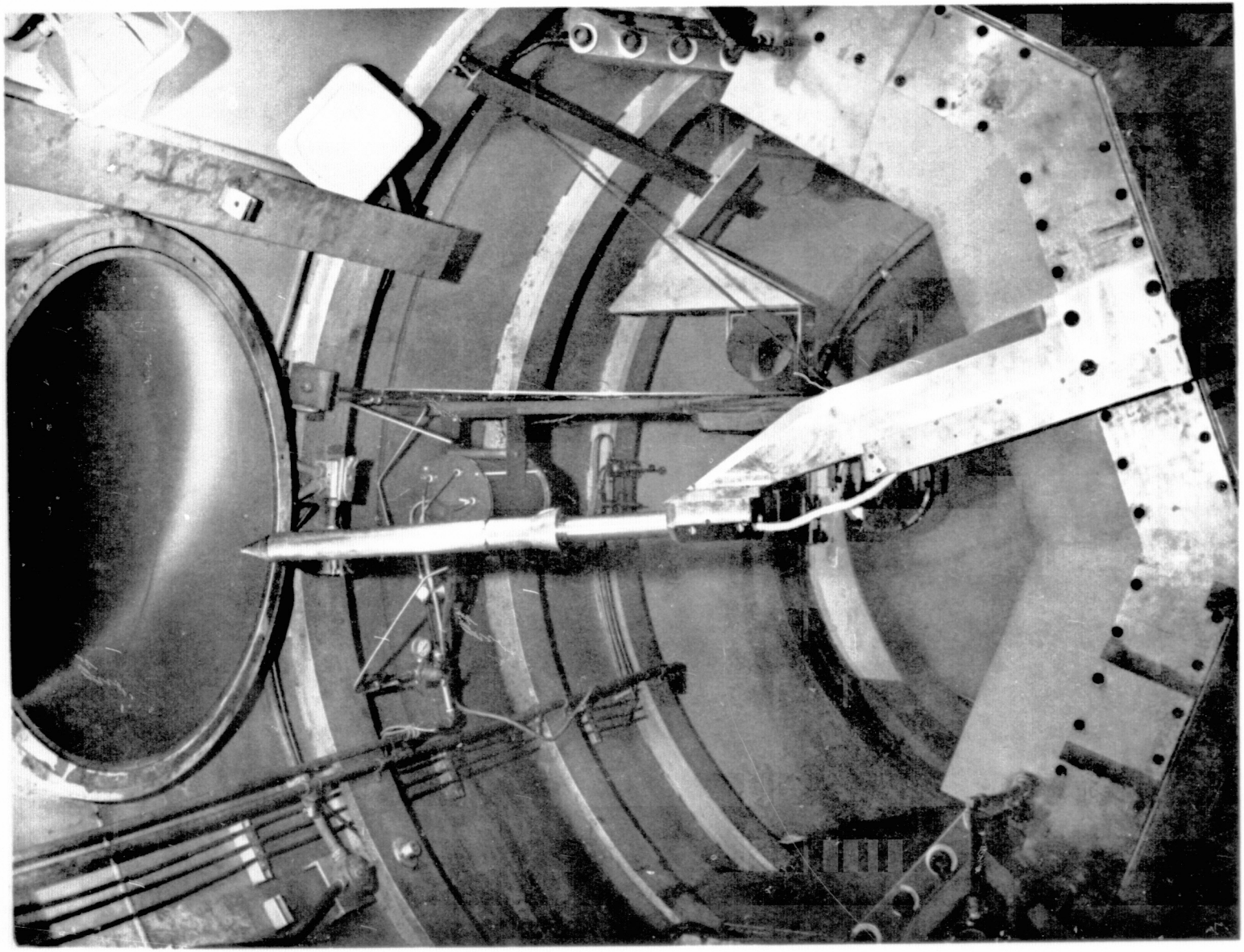
c. Orbiter (O_1) and external tank (T_{15}) in mated configuration without boundary-layer trips; $\alpha = 0°$, $\beta = 0°$

Figure 3. - Continued.



d. External tank (T_{15}) alone without boundary-layer trips; $\alpha = -5°$, $\beta = 0°$

Figure 3. - Continued.



e. SRB (S_8) alone without boundary-layer trips $\alpha = -5°$, $\beta = 0°$

Figure 3. - Concluded.

DATA FIGURES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REITI9)	○	ARC 3.5-178 IH3 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

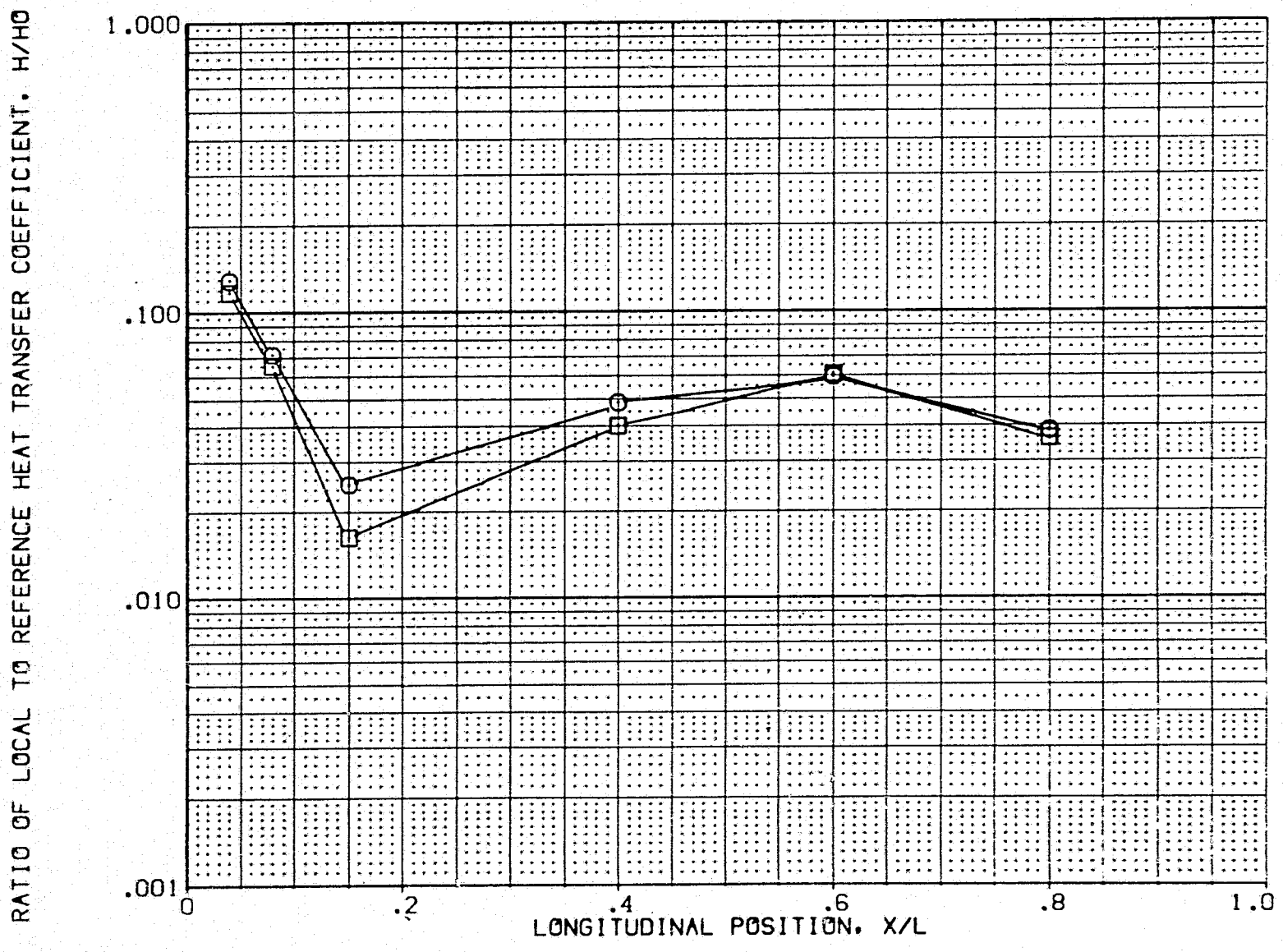


FIG. 4 EFFECT OF REPEATABILITY - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIT19) ○	ARC 3.5-178 IH3 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000
(RENT02) □	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000



FIG. 4 EFFECT OF REPEATABILITY - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 45.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIT19) ○	ARC 3.5-178 IH3 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000
(RENT02) □	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000



FIG. 4 EFFECT OF REPEATABILITY - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 67.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIT19)	○	ARC 3.5-178 IH3 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

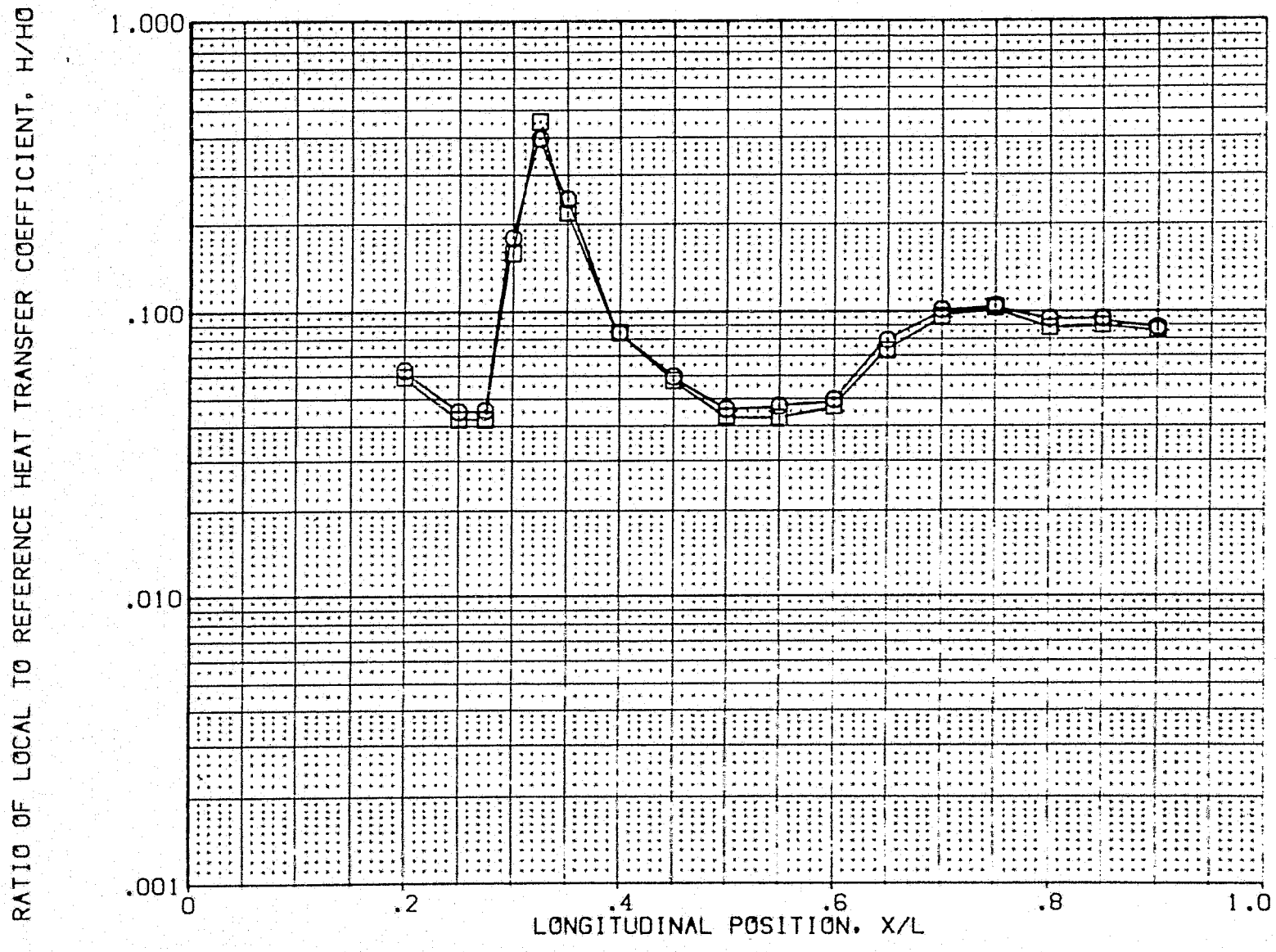


FIG. 4 EFFECT OF REPEATABILITY - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 90.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIT19)	○	ARC 3.5-178 IH3 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

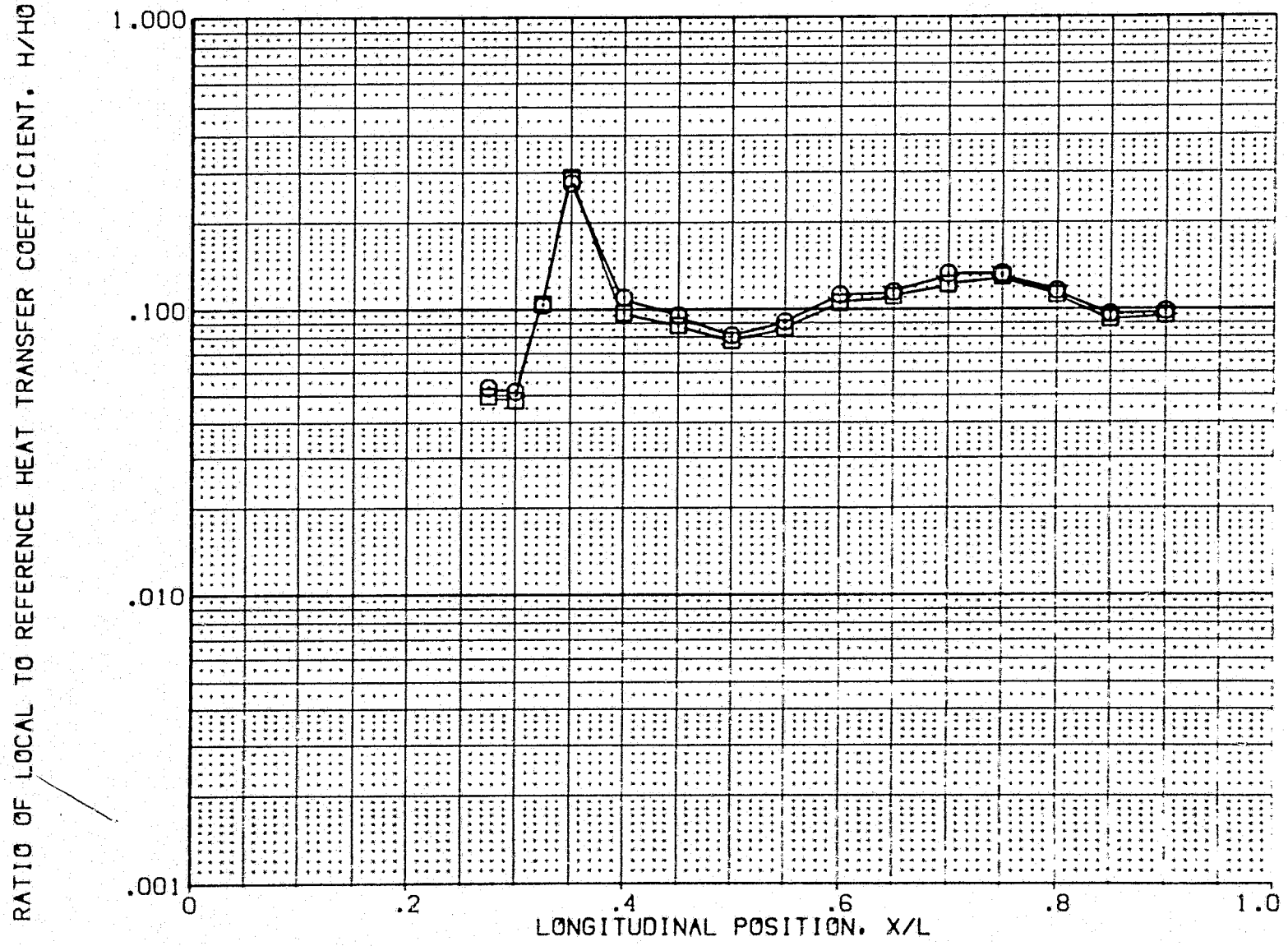


FIG. 4 EFFECT OF REPEATABILITY - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 112.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REJT19)	○	ARC 3.5-178 IH3 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

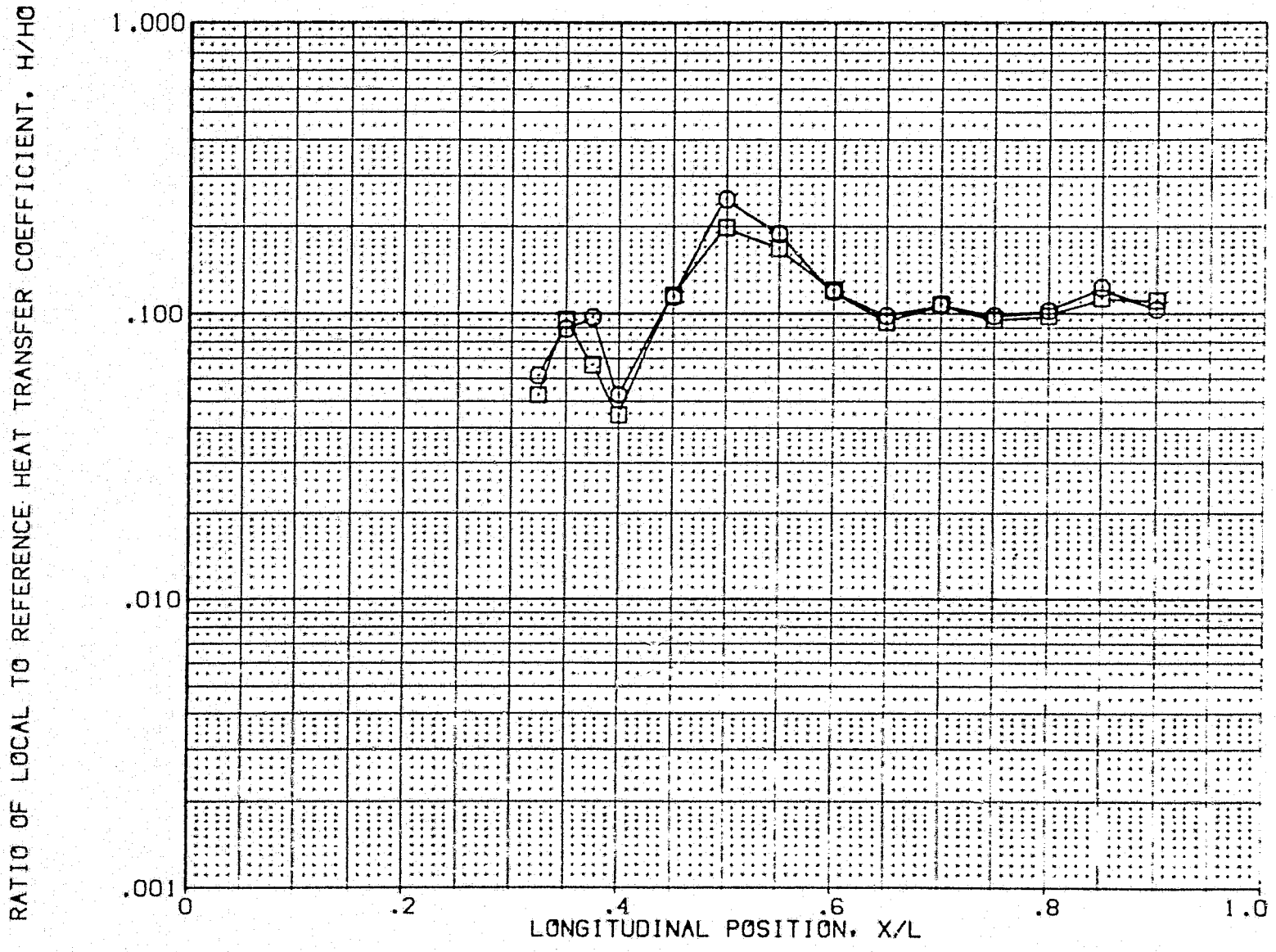


FIG. 4 EFFECT OF REPEATABILITY - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 135.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REITI9) ○	DATA NOT AVAILABLE		-5.000	.000	5.300	5.000
(RENT02) □	ARC 3.5-185 1H20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

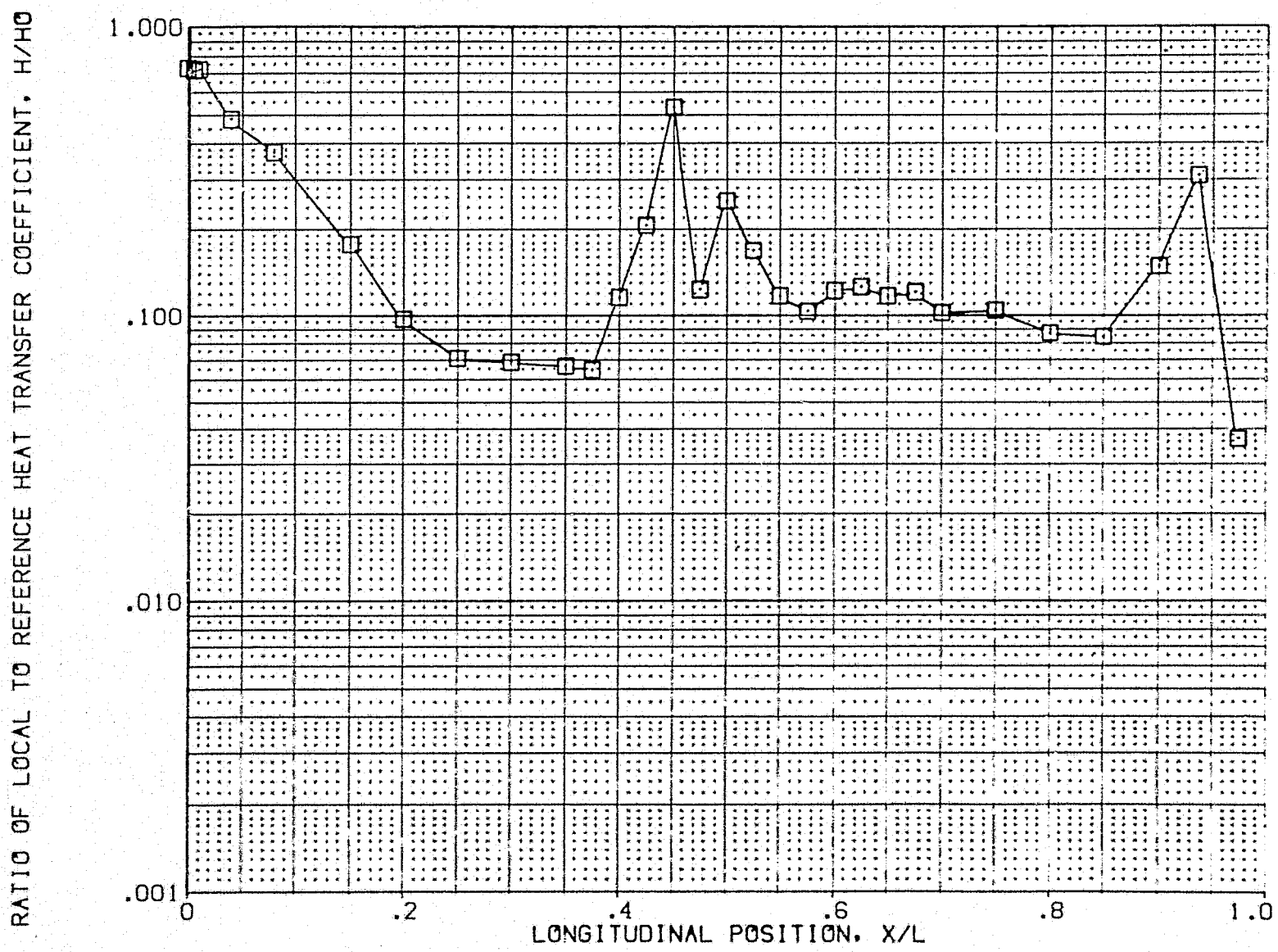


FIG. 4 EFFECT OF REPEATABILITY - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIA19)	○	ARC 3.5-178 IH3 01+T15+S8	ORB PHI=0.0	-5.000	.000	5.300	5.000
(RENA02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=0.0	-5.000	.000	5.300	5.000

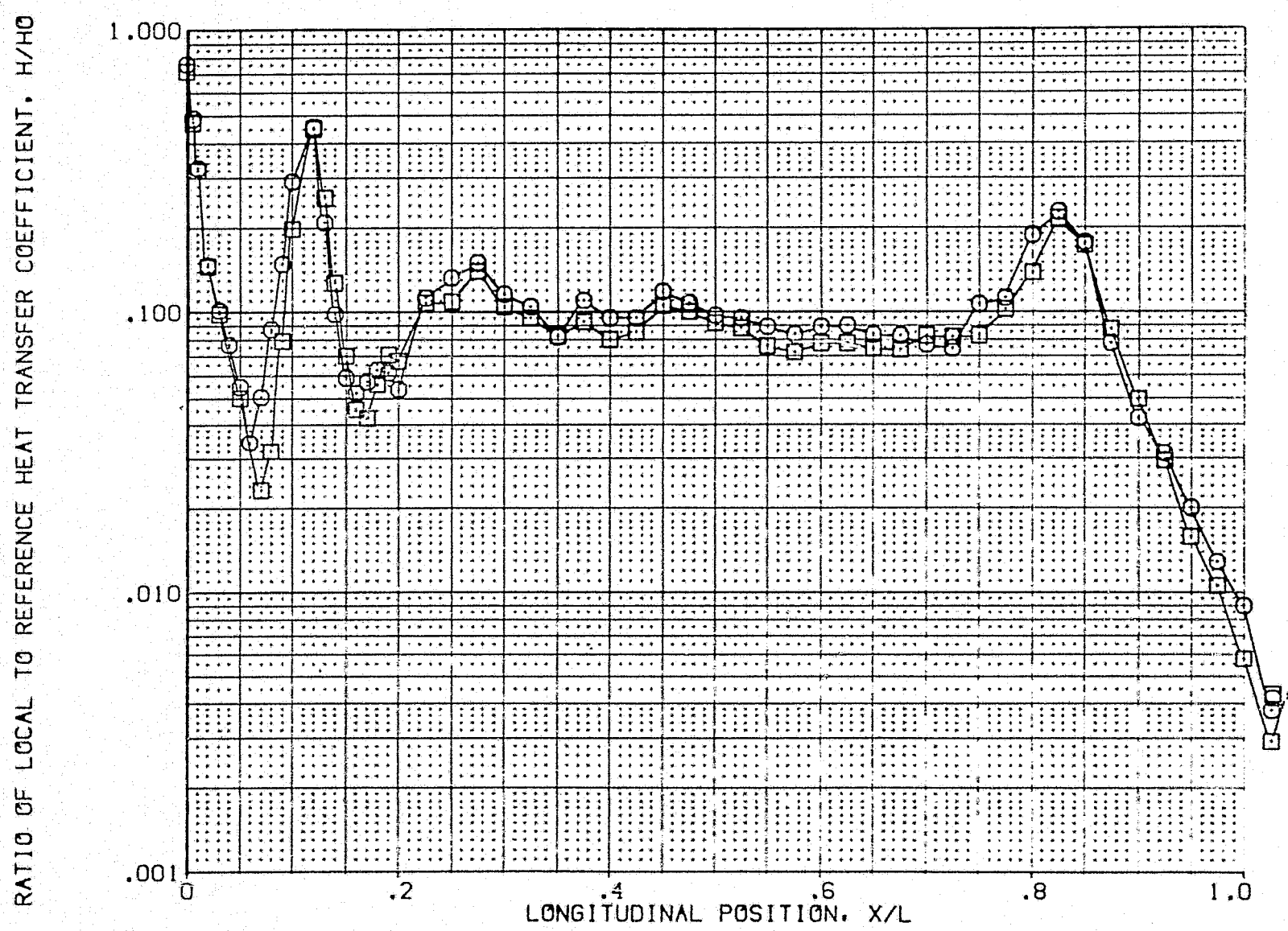


FIG. 4 EFFECT OF REPEATABILITY - BODY

MACH = 5.300 HAW/HT= .900 PHI = .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RE1C19)	○	ARC 3.5-178 1H3 01+T15+S8	ORB Y=0.875	-5.000	.000	5.300	5.000
(RENC02)	□	ARC 3.5-185 1H20 01+T15+S8	ORB Y=0.875	-5.000	.000	5.300	5.000

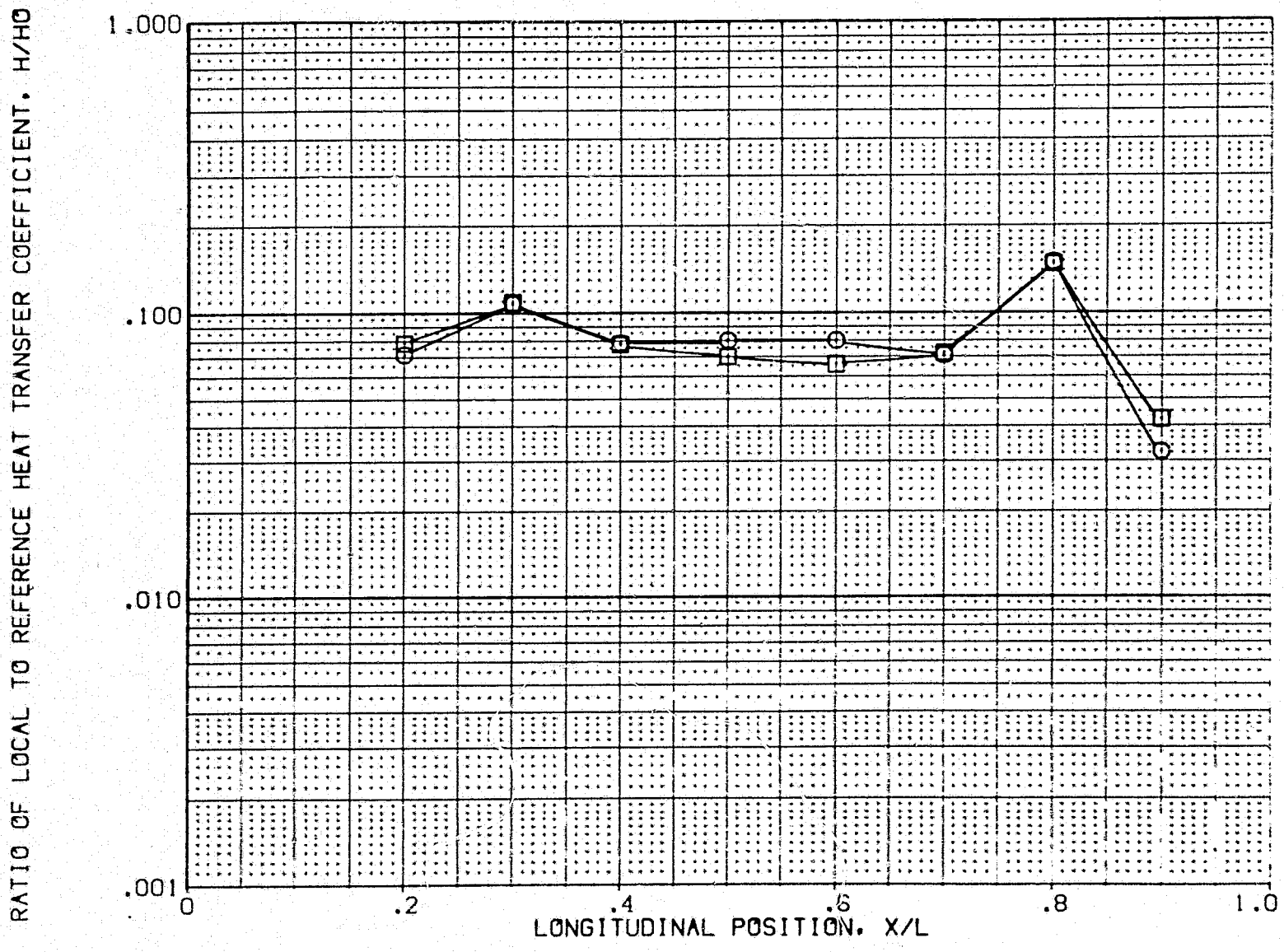


FIG. 4 EFFECT OF REPEATABILITY - BODY

MACH = 5.300 HAW/HT= .900 Y = .875

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RE1H19) ○	ARC 3.5-178 IH3 01+T15+S8	ORB Z=7.525	-5.000	.000	5.300	5.000
(RENH02) □	ARC 3.5-185 IH20 01+T15+S8	ORB Z=7.525	-5.000	.000	5.300	5.000

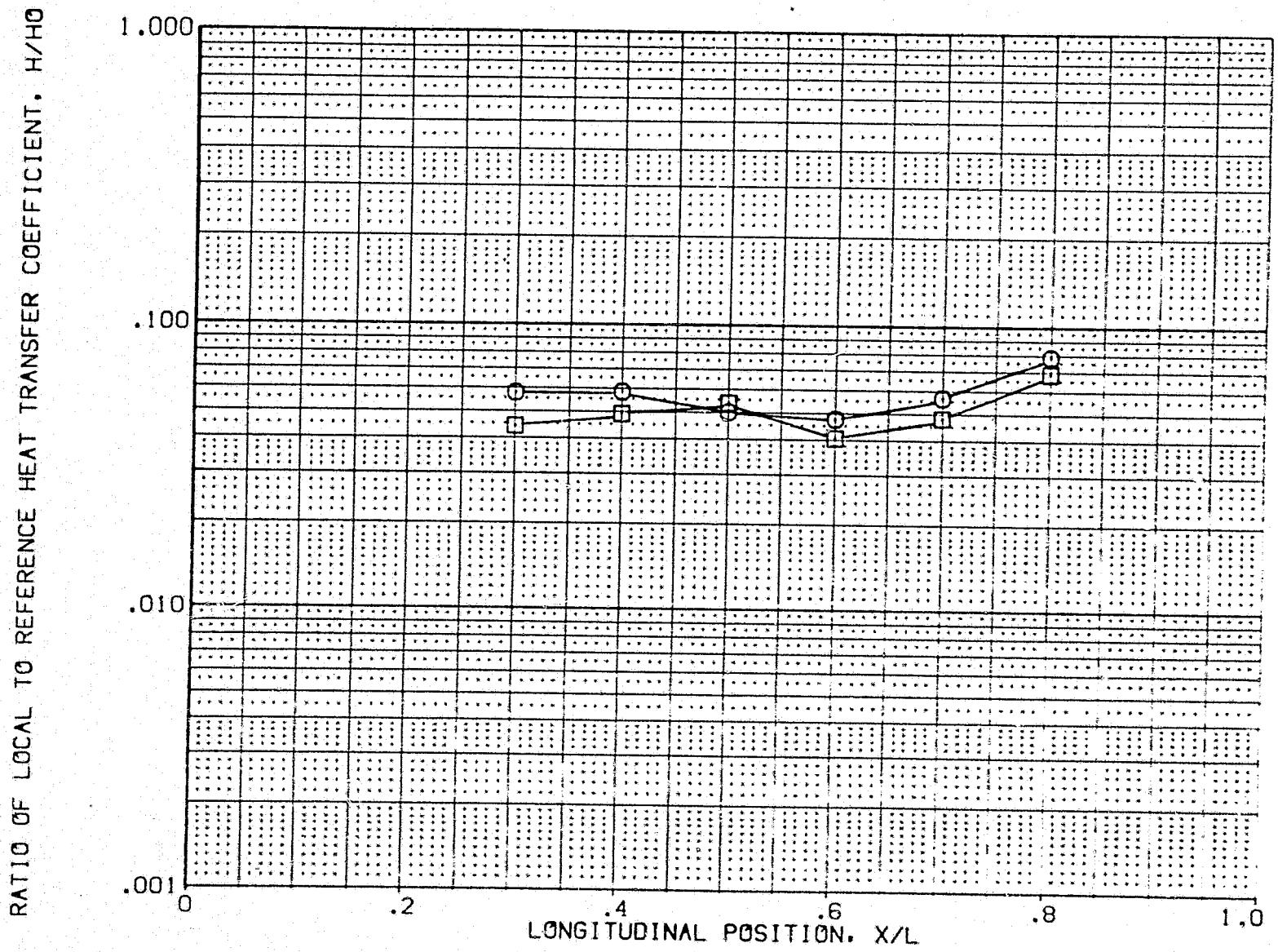


FIG. 4 EFFECT OF REPEATABILITY - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.525

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RE1M19)	○	ARC 3.5-178 1H3 01+T15+S8	ORB Z=8.295	-5.000	.000	5.300	5.000
(RENM02)	□	ARC 3.5-185 1H20 01+T15+S8	ORB Z=8.295	-5.000	.000	5.300	5.000

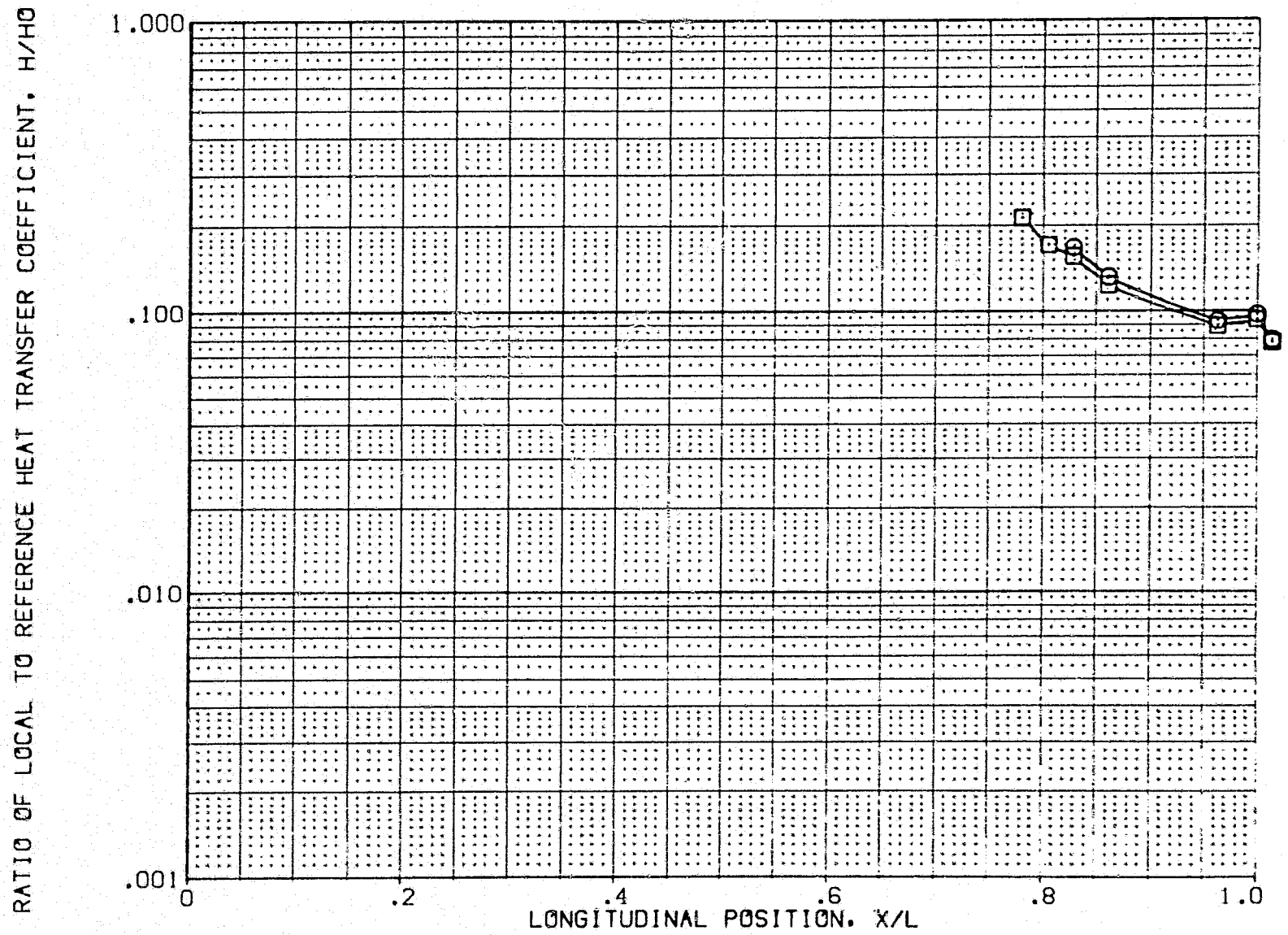


FIG. 4 EFFECT OF REPEATABILITY - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.295

C-2

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIJ19)	○	ARC 3.5-178 IH3 01+T15+S8	ORB Z=8.379	-5.000	.000	5.300	5.000
(RENJ02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB Z=8.379	-5.000	.000	5.300	5.000

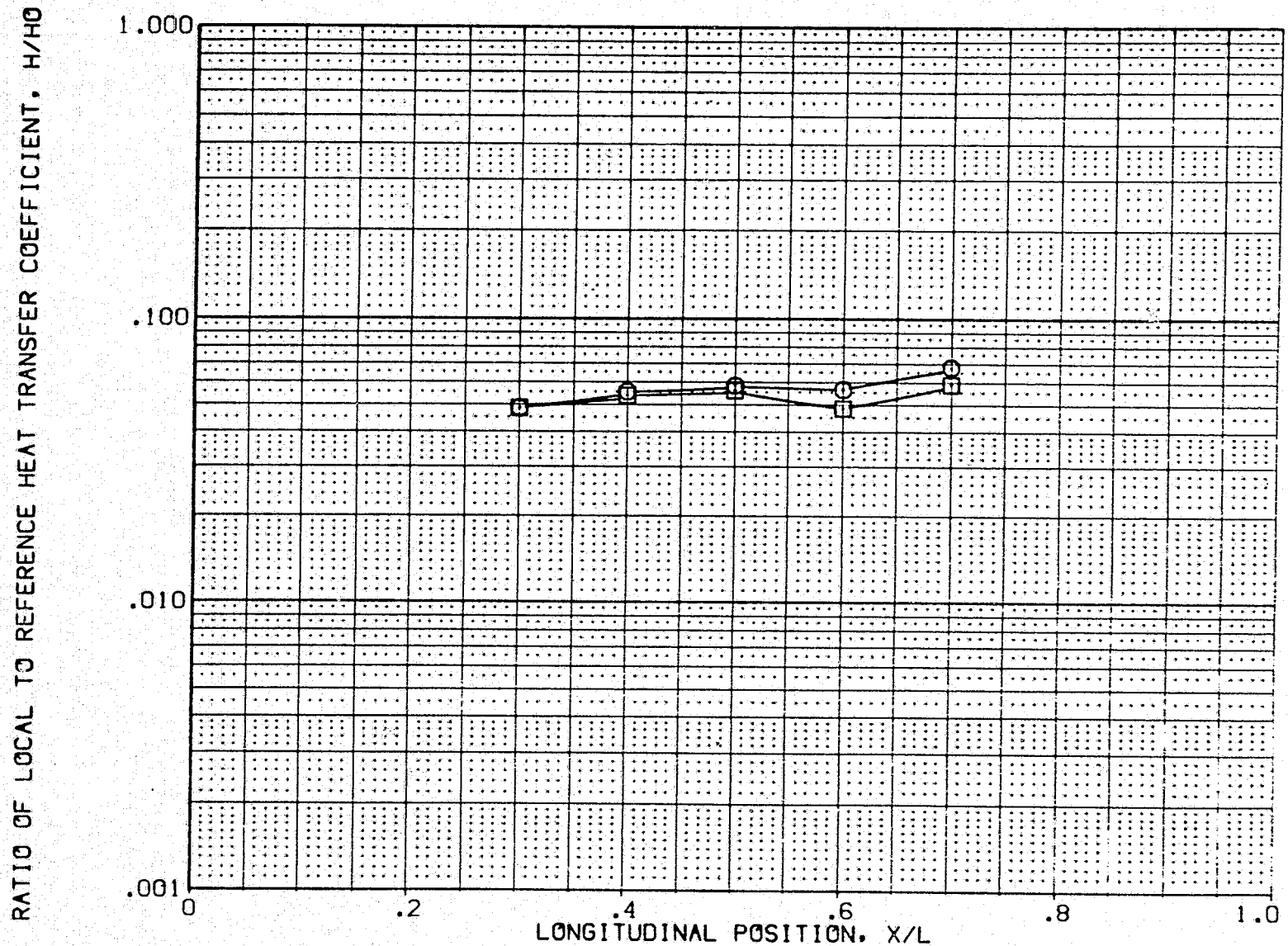


FIG. 4 EFFECT OF REPEATABILITY - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.379

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RE1019) ○	ARC 3.5-178 IH3 01+T15+S8	OMS TOP	-5.000	.000	5.300	5.000
(REN002) □	ARC 3.5-185 IH20 01+T15+S8	OMS TOP	-5.000	.000	5.300	5.000

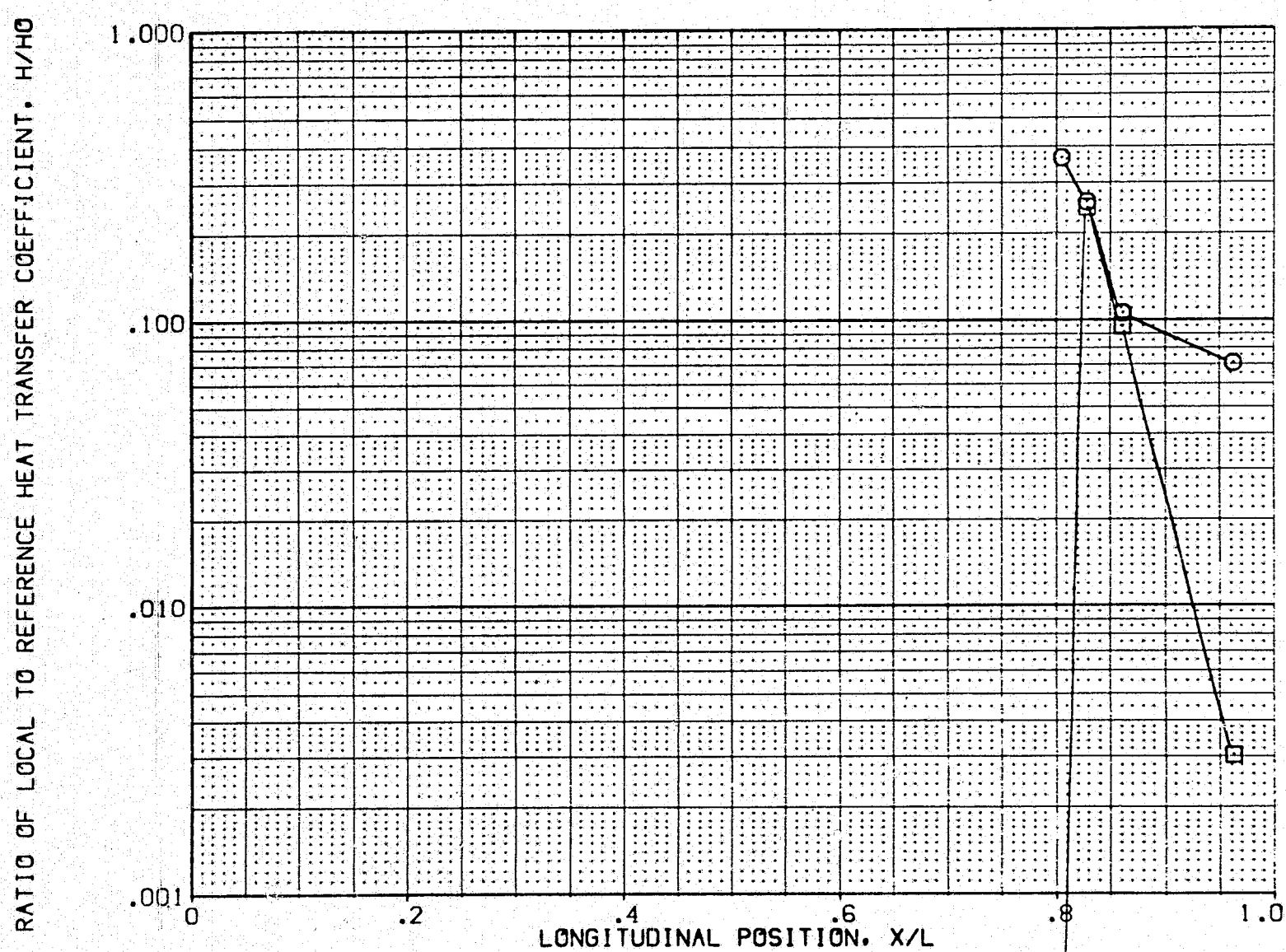


FIG. 4 EFFECT OF REPEATABILITY - BODY

MACH = 5.300 HAW/HT= .900 Y = 1.662

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIK19)	○	ARC 3.5-178 IH3 01+T15+S8	ORB PHI=180	-5.000	.000	5.300	5.000
(RENK02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=180	-5.000	.000	5.300	5.000

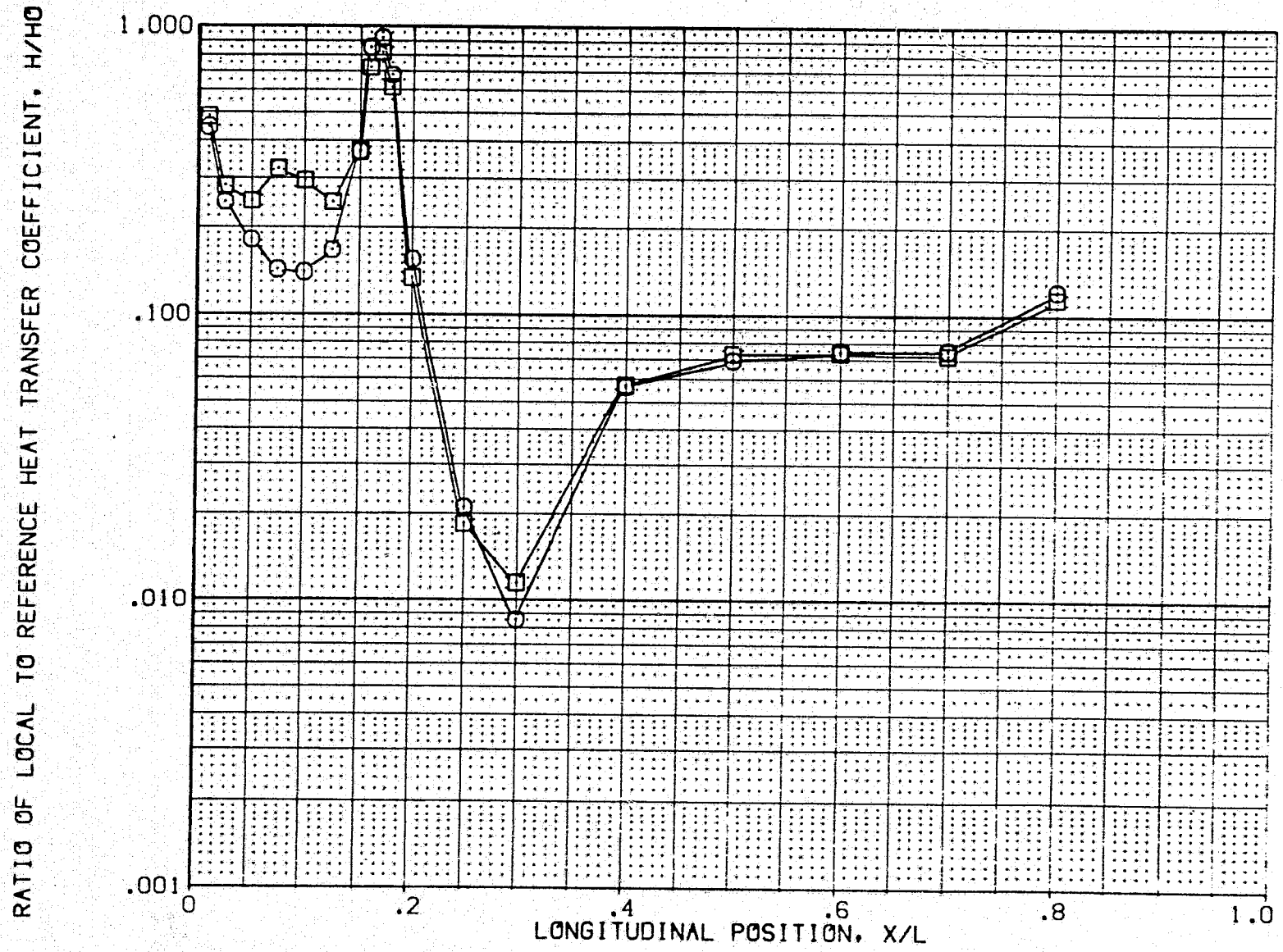


FIG. 4 EFFECT OF REPEATABILITY - BODY

MACH = 5.300 HAW/HT= .900 PHI = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIV19)	○	ARC 3.5-178 IH3 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

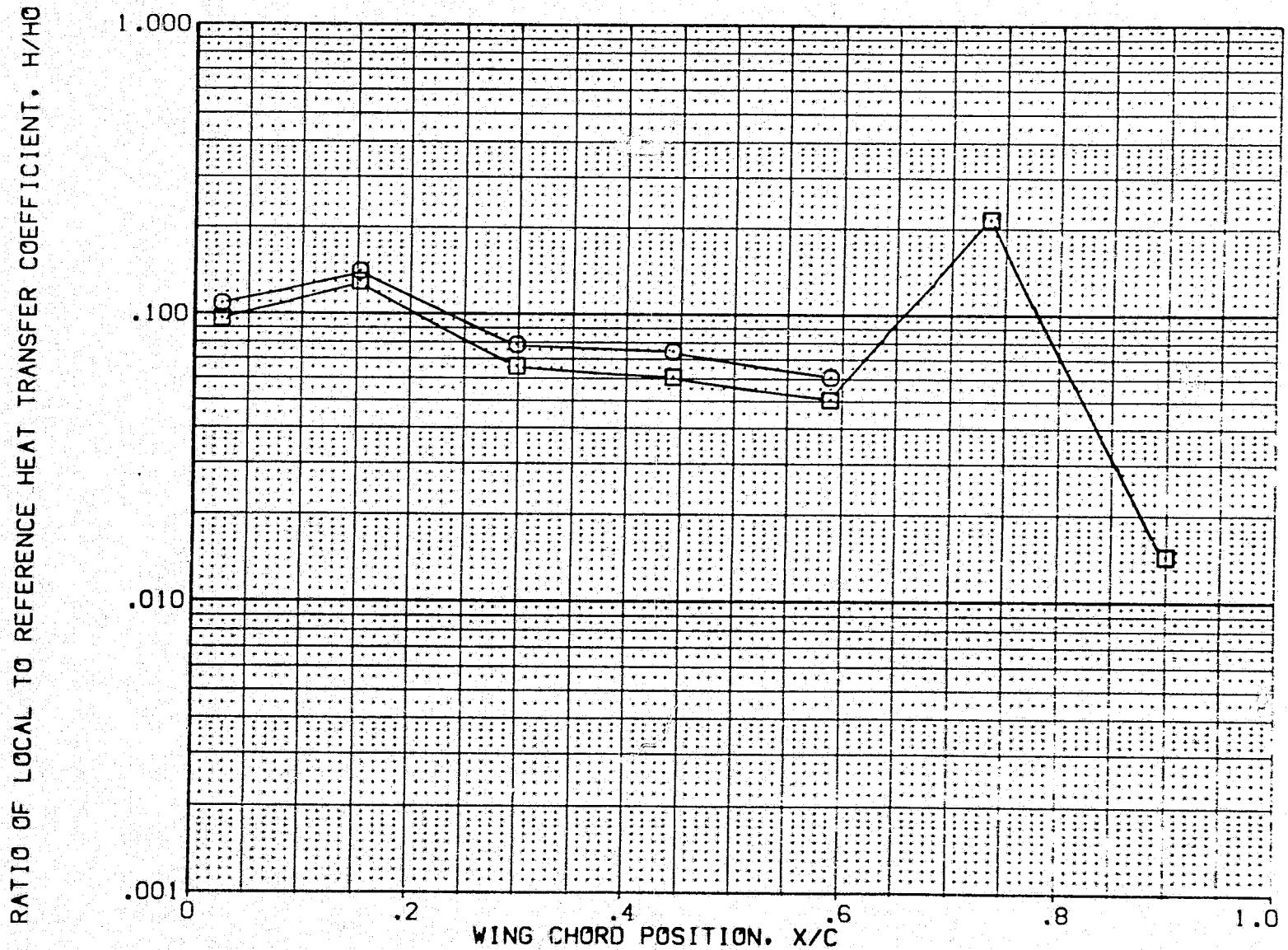


FIG. 4 EFFECT OF REPEATABILITY - WING, BOTTOM

MACH = 5.300 HAW/HT= .900 2Y/B = .250

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIV19)	DATA NOT AVAILABLE		-5.000	.000	5.300	5.000
(RENV02)	ARC 3.5-185 1H20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

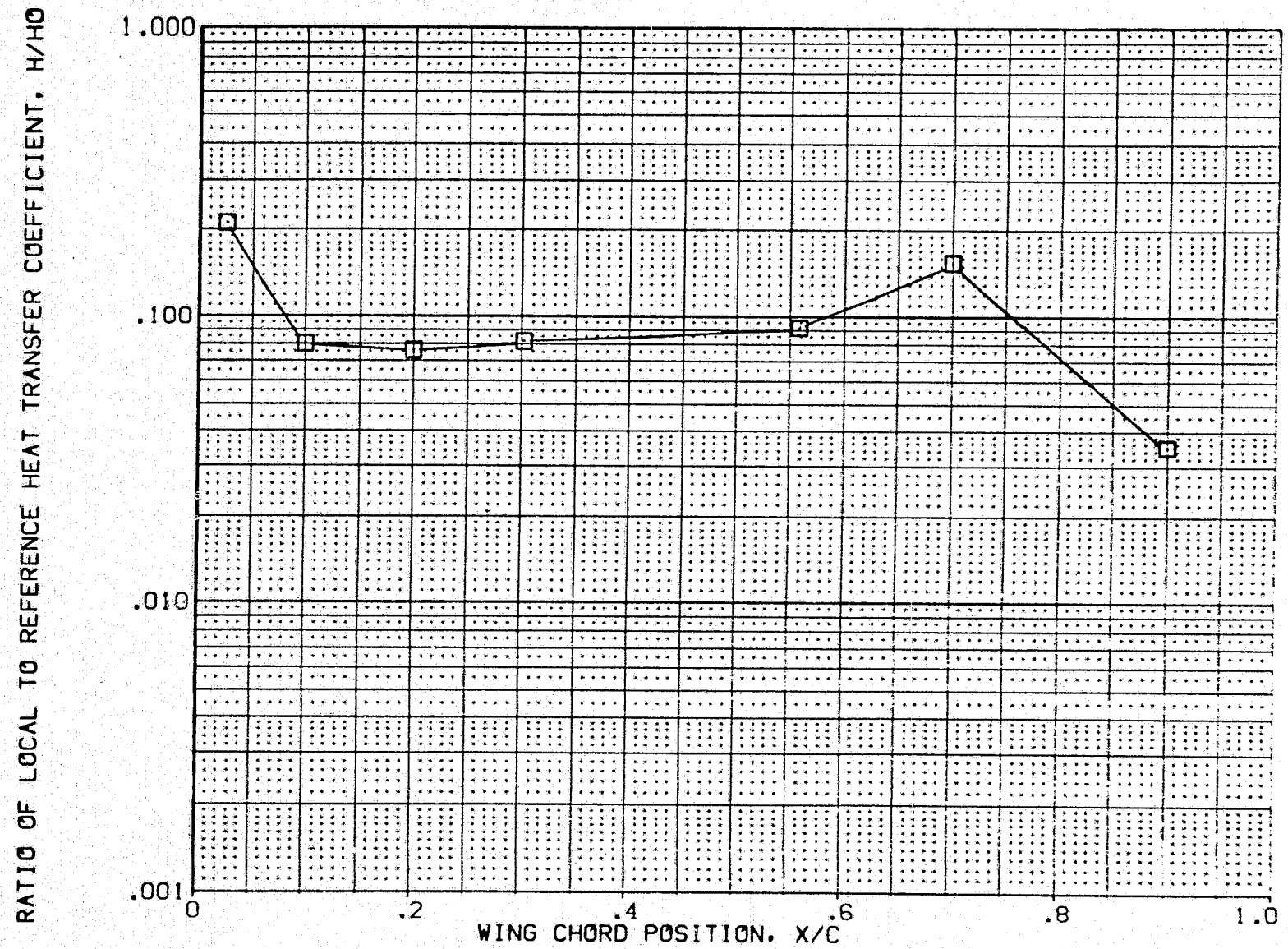


FIG. 4 EFFECT OF REPEATABILITY - WING, BOTTOM

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIW19) ○	DATA NOT AVAILABLE		-5.000	.000	5.300	5.000
(RENW02) □	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

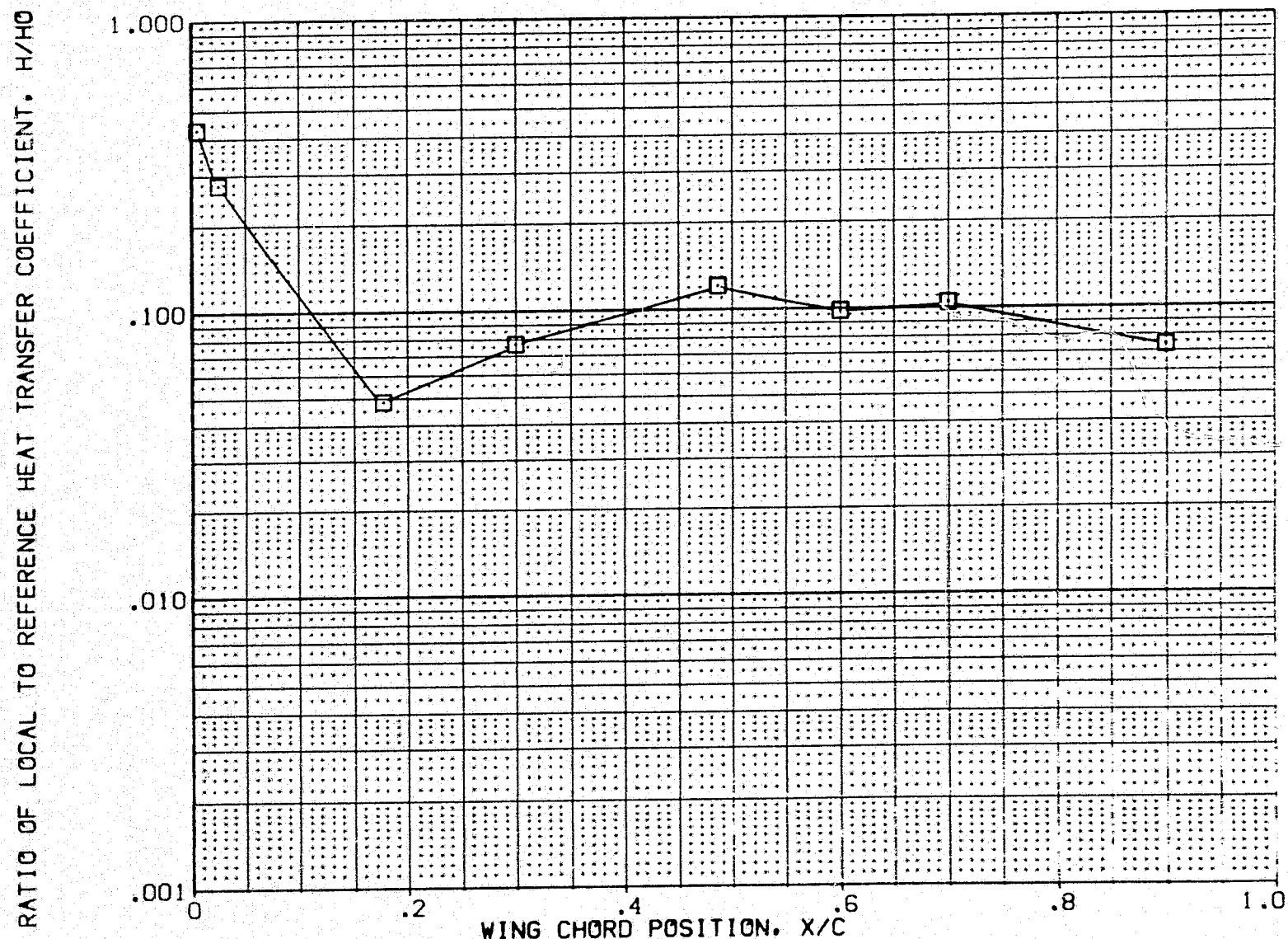


FIG. 4 EFFECT OF REPEATABILITY - WING,BOTTOM

MACH = 5.300 HAW/HT= .900 2Y/B = .500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RE1V19)	○	ARC 3.5-178 IH3 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

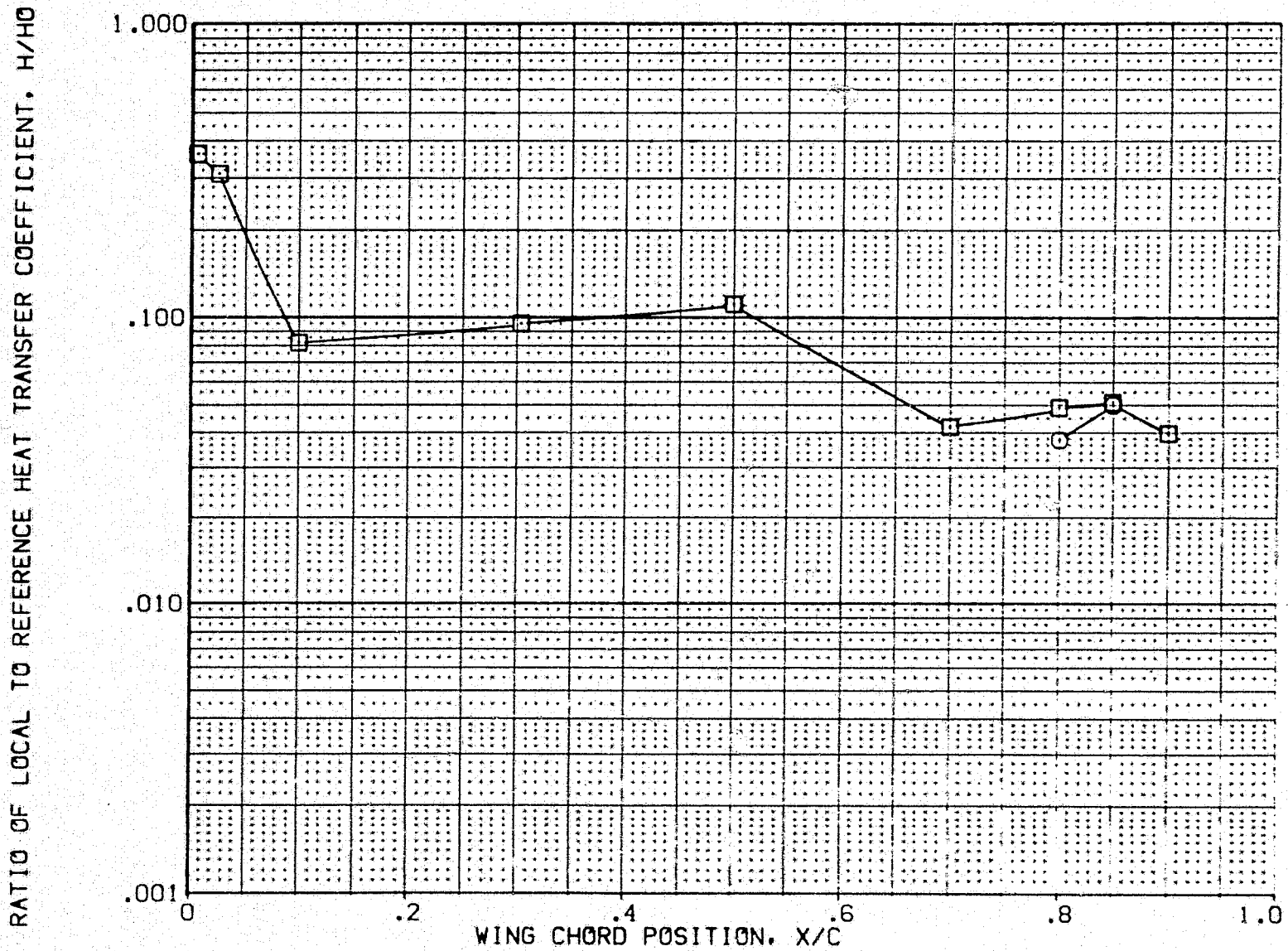


FIG. 4 EFFECT OF REPEATABILITY - WING, BOTTOM

MACH = 5.300 HAW/HT= .900 2Y/B = .750

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIWI9) ○	DATA NOT AVAILABLE		-5.000	.000	5.300	5.000
(RENW02) □	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

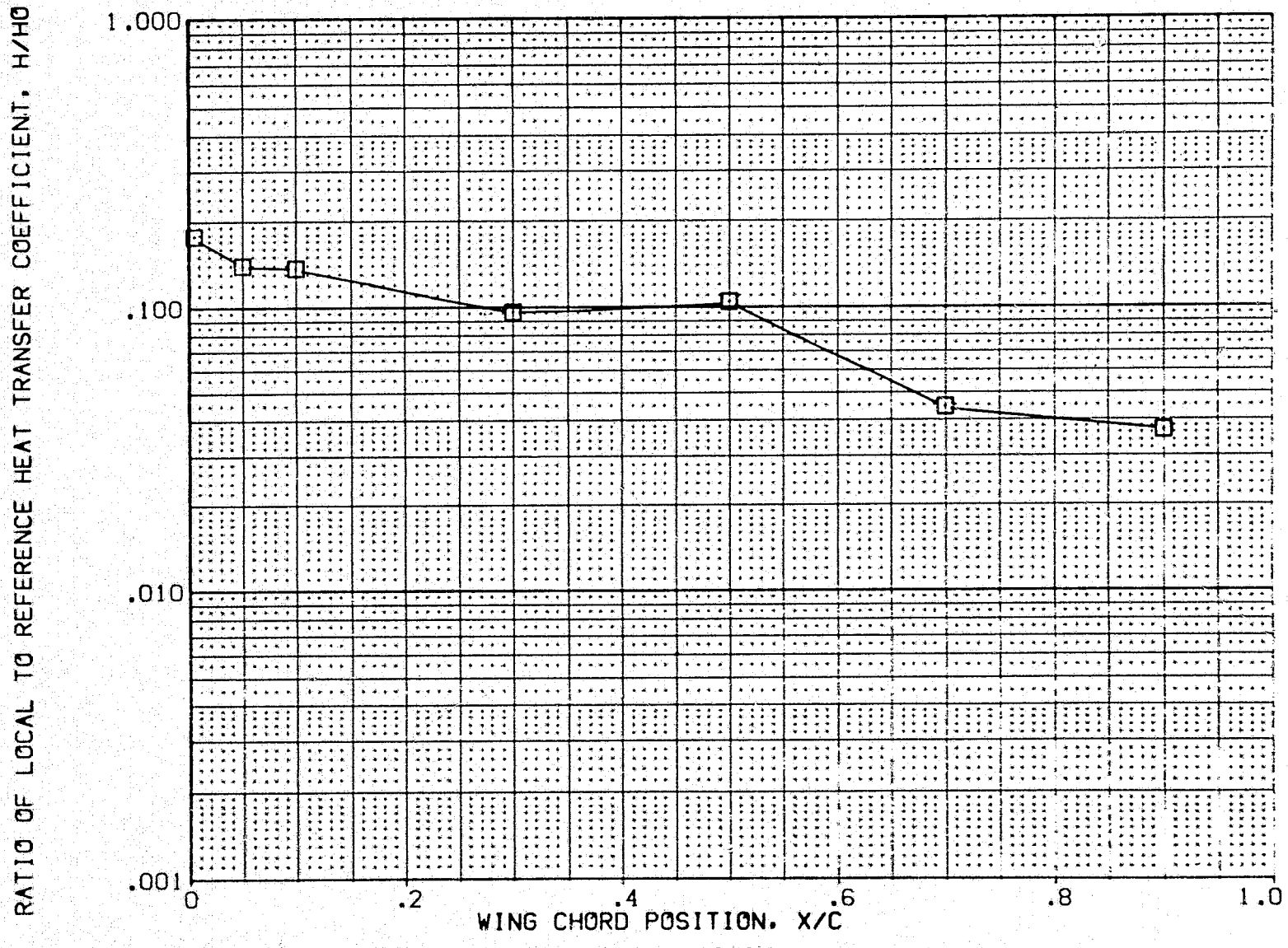


FIG. 4 EFFECT OF REPEATABILITY - WING, BOTTOM

MACH = 5.300 HAW/HT= .900 2Y/B = .950

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIX19)	○	ARC 3.5-178 IH3 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000
(RENX02)	□	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000

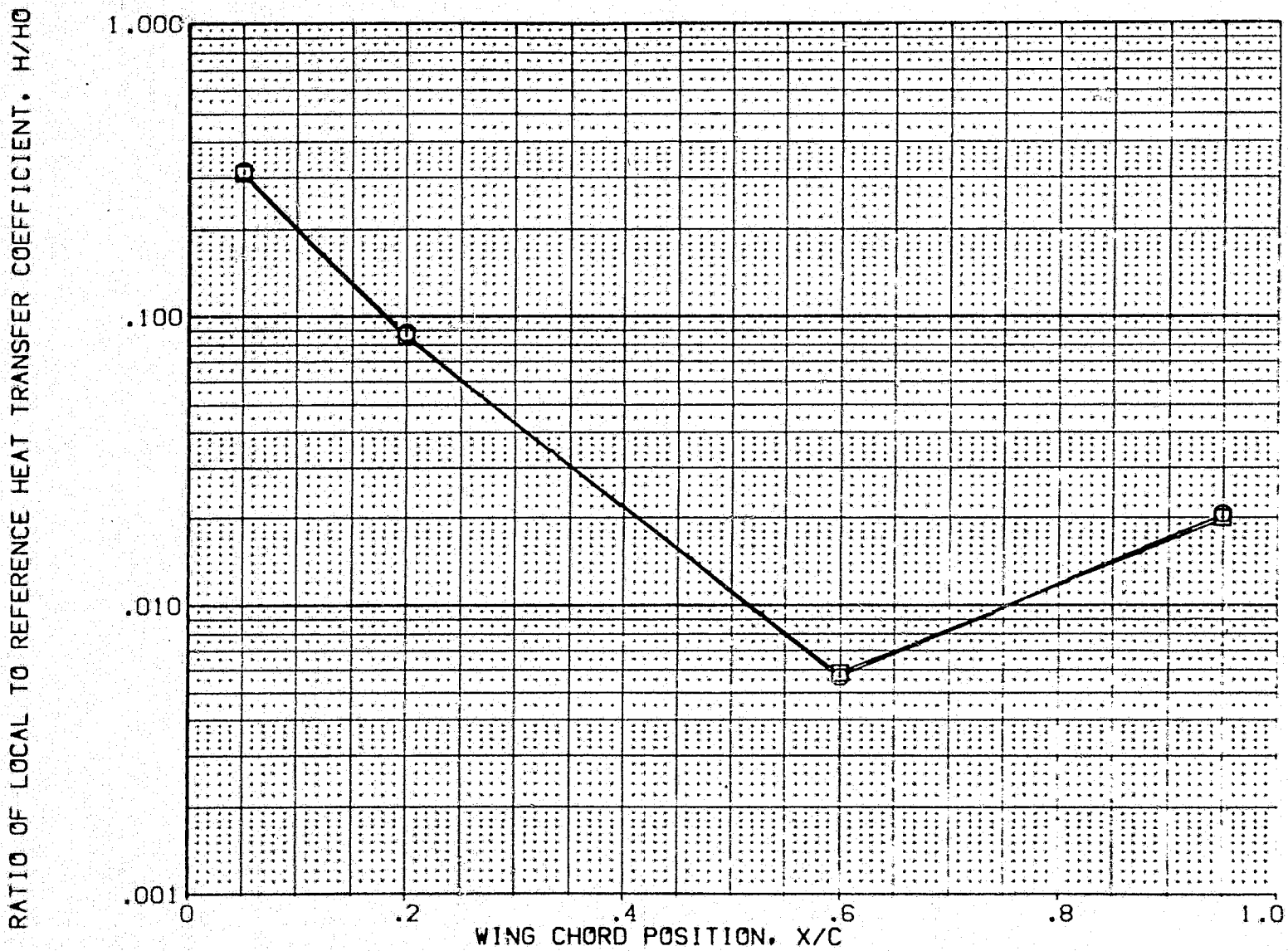


FIG. 4 EFFECT OF REPEATABILITY - WING, TOP

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIX19)	○	ARC 3.5-178 IH3 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000
(RENX02)	□	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000

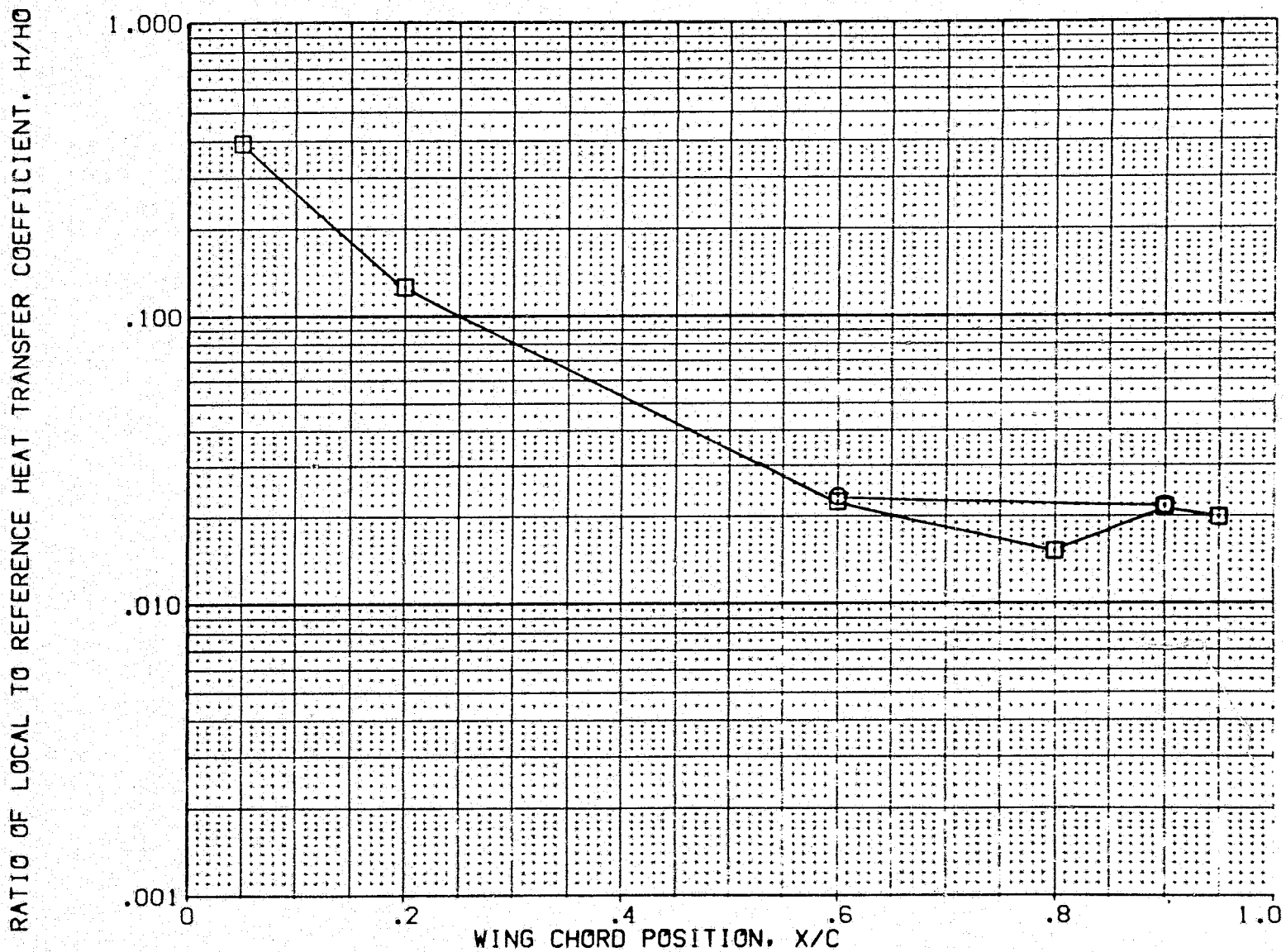


FIG. 4 EFFECT OF REPEATABILITY - WING, TOP

MACH = 5.300 HAW/HT= .900 2Y/B = .600

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RE1X19)	○	ARC 3.5-178 IH3 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000
(RENX02)	□	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000

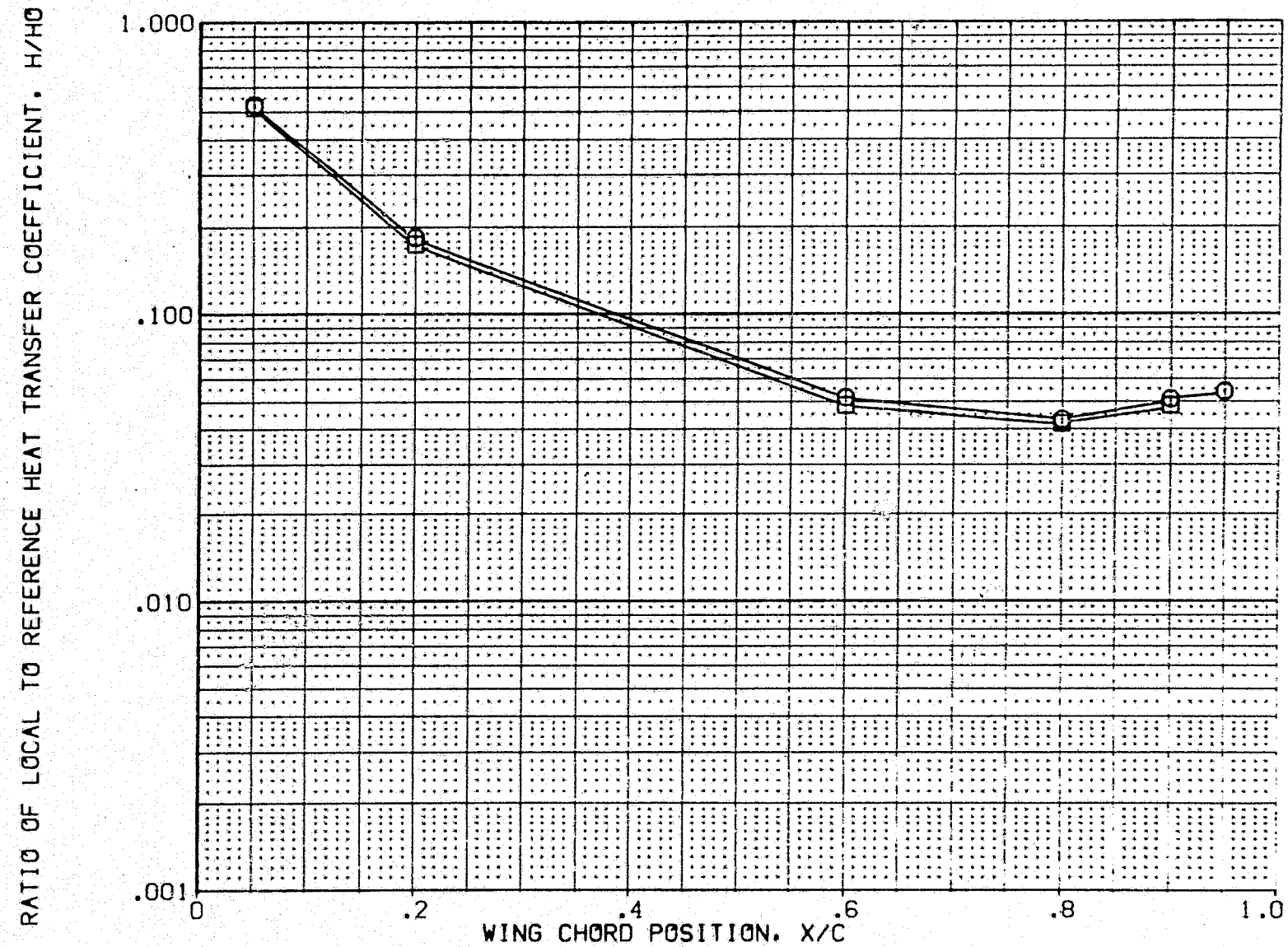


FIG. 4 EFFECT OF REPEATABILITY - WING, TOP

MACH = 5.300 HAW/HT= .900 2Y/B = .800

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIV19)	○	ARC 3.5-178 IH3 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

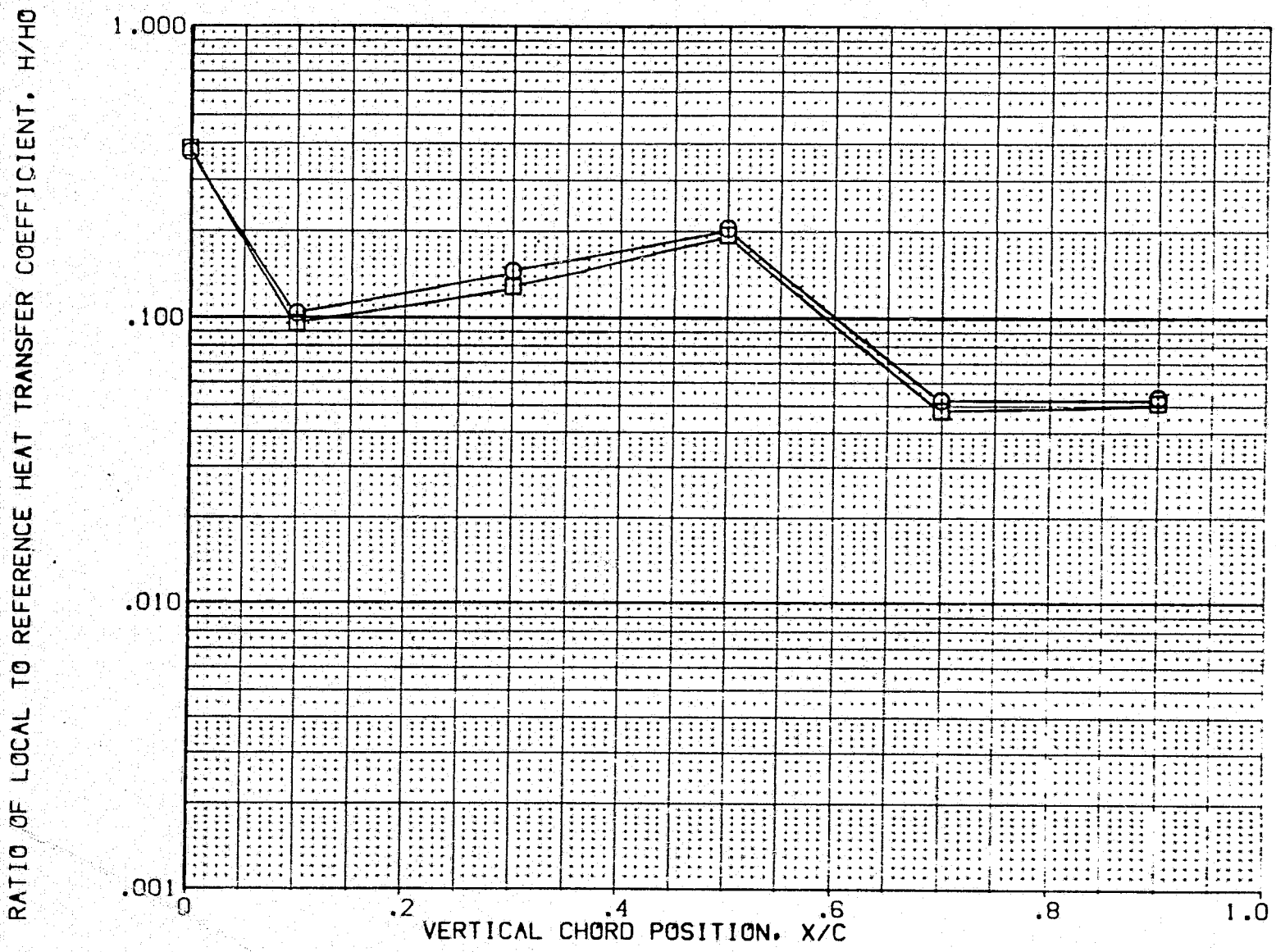


FIG. 4 EFFECT OF REPEATABILITY - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .299

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIV19)	○	DATA NOT AVAILABLE					
(RENV02)	□	ARC 3.5-18S IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000
				-5.000	.000	5.300	5.000

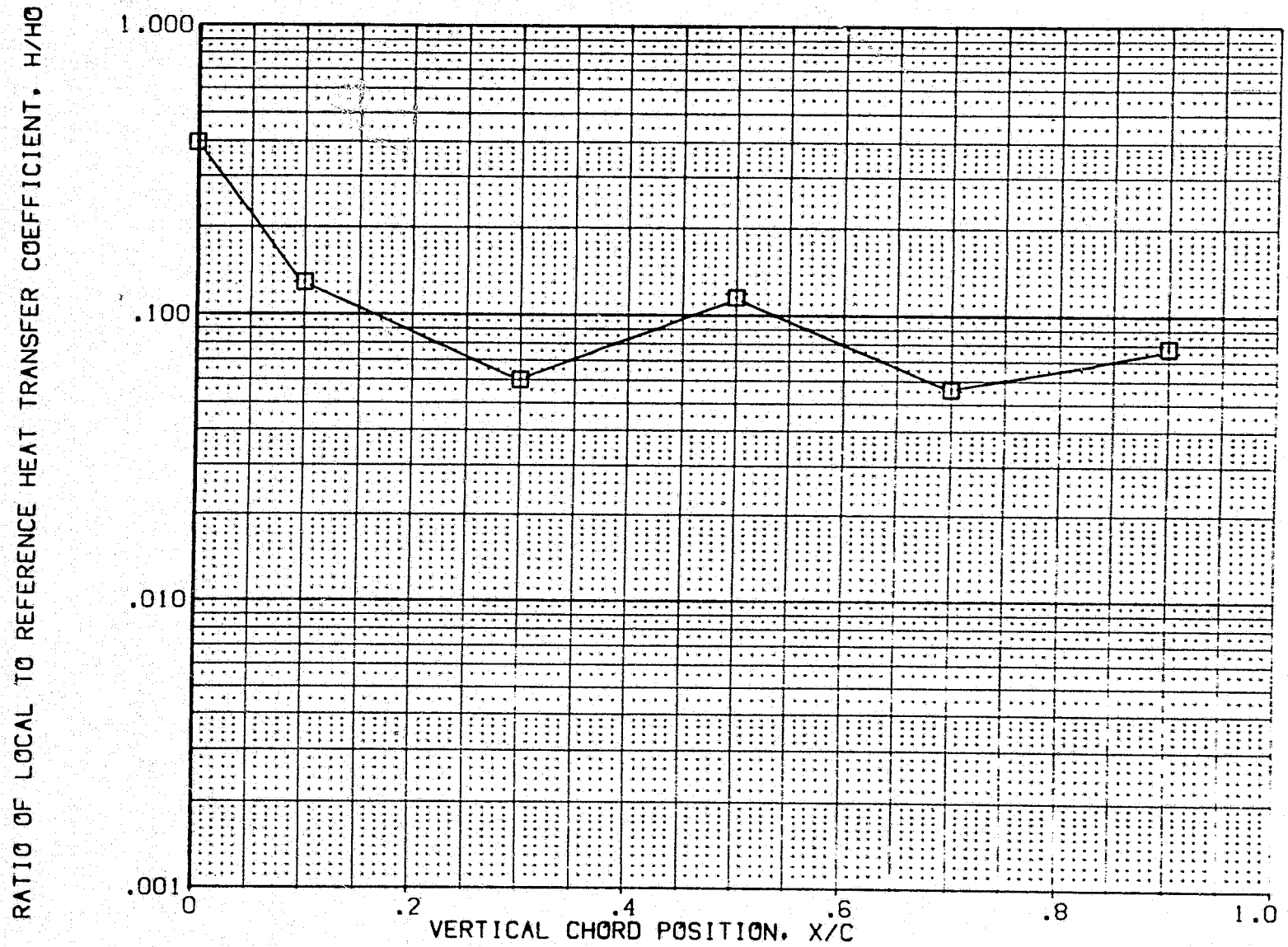


FIG. 4 EFFECT OF REPEATABILITY - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .532

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIV19) ○	DATA NOT AVAILABLE		-5.000	.000	5.300	5.000
(RENV02) □	ARC 3.5-18S IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

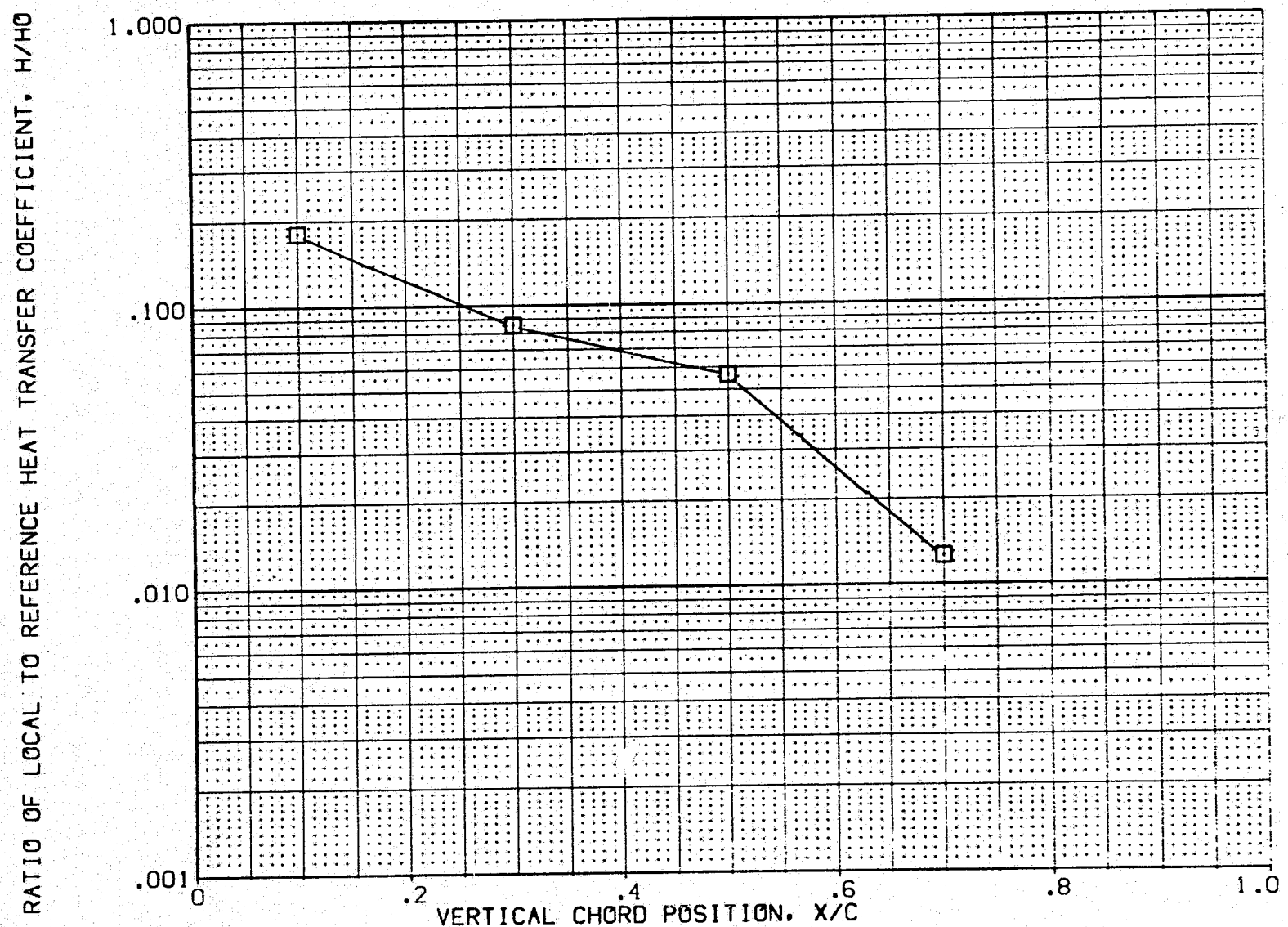


FIG. 4 EFFECT OF REPEATABILITY - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .765

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIV19)	○	ARC 3.5-178 IH3 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

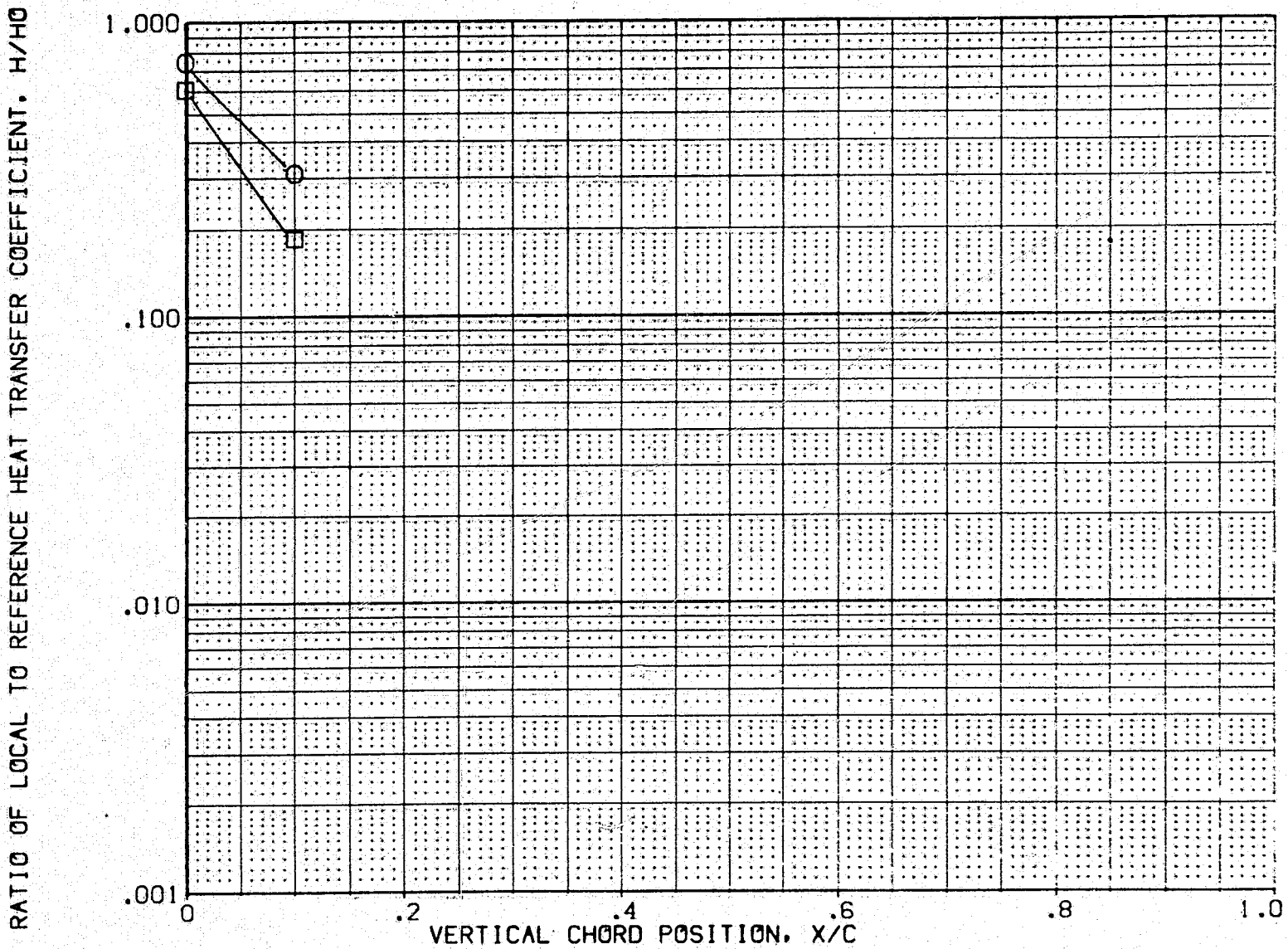


FIG. 4 EFFECT OF REPEATABILITY - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .905

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RE1V19)	○	ARC 3.5-178 IH3 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

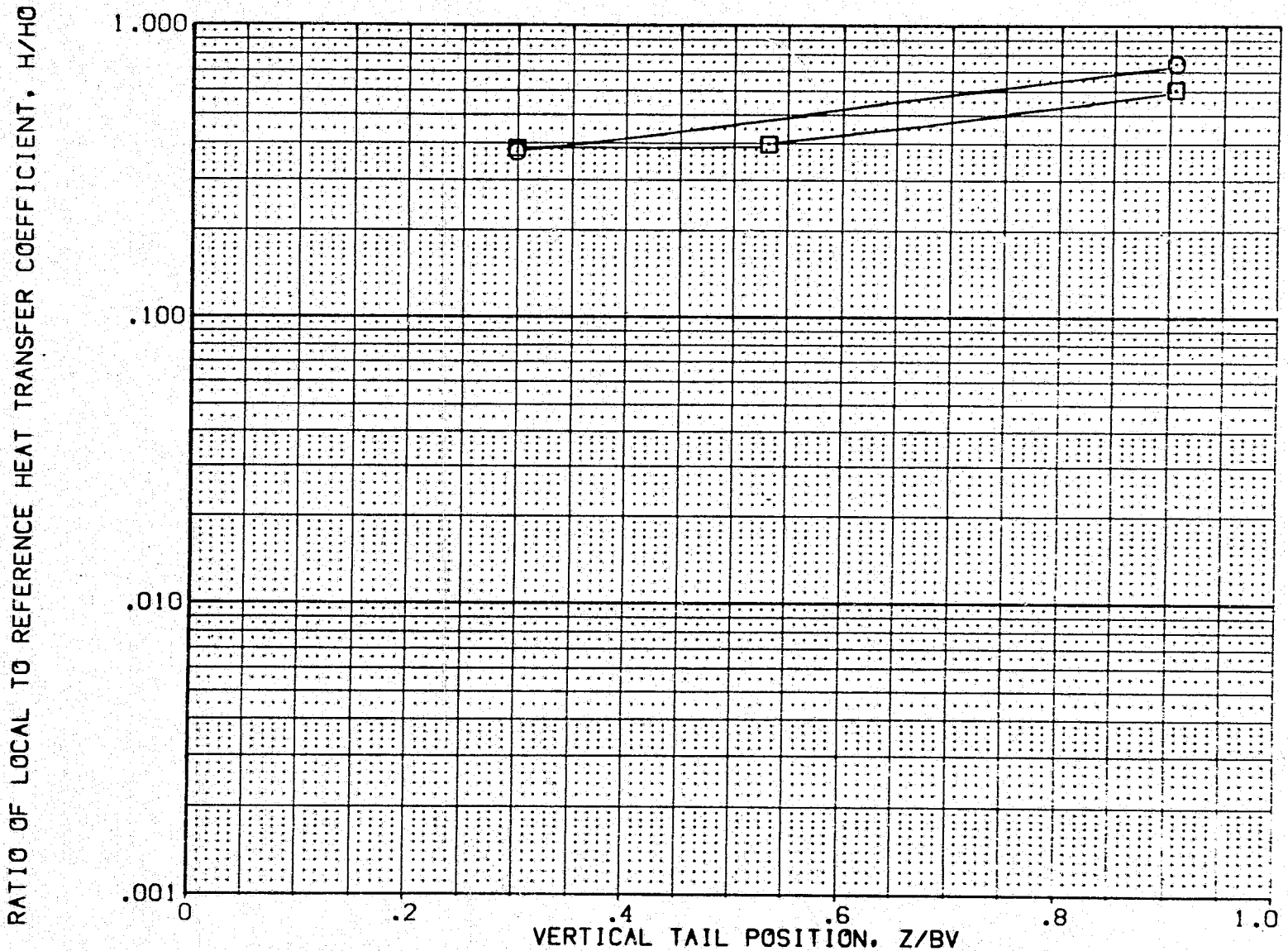


FIG. 4 EFFECT OF REPEATABILITY - VERTICAL

MACH = 5.300 HAW/HT= .900 X/C = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIS16) ○	ARC 3.5-178 IH3 S8	SOLID BOOSTER	20.000	.000	5.300	5.000
(RENS28) □	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

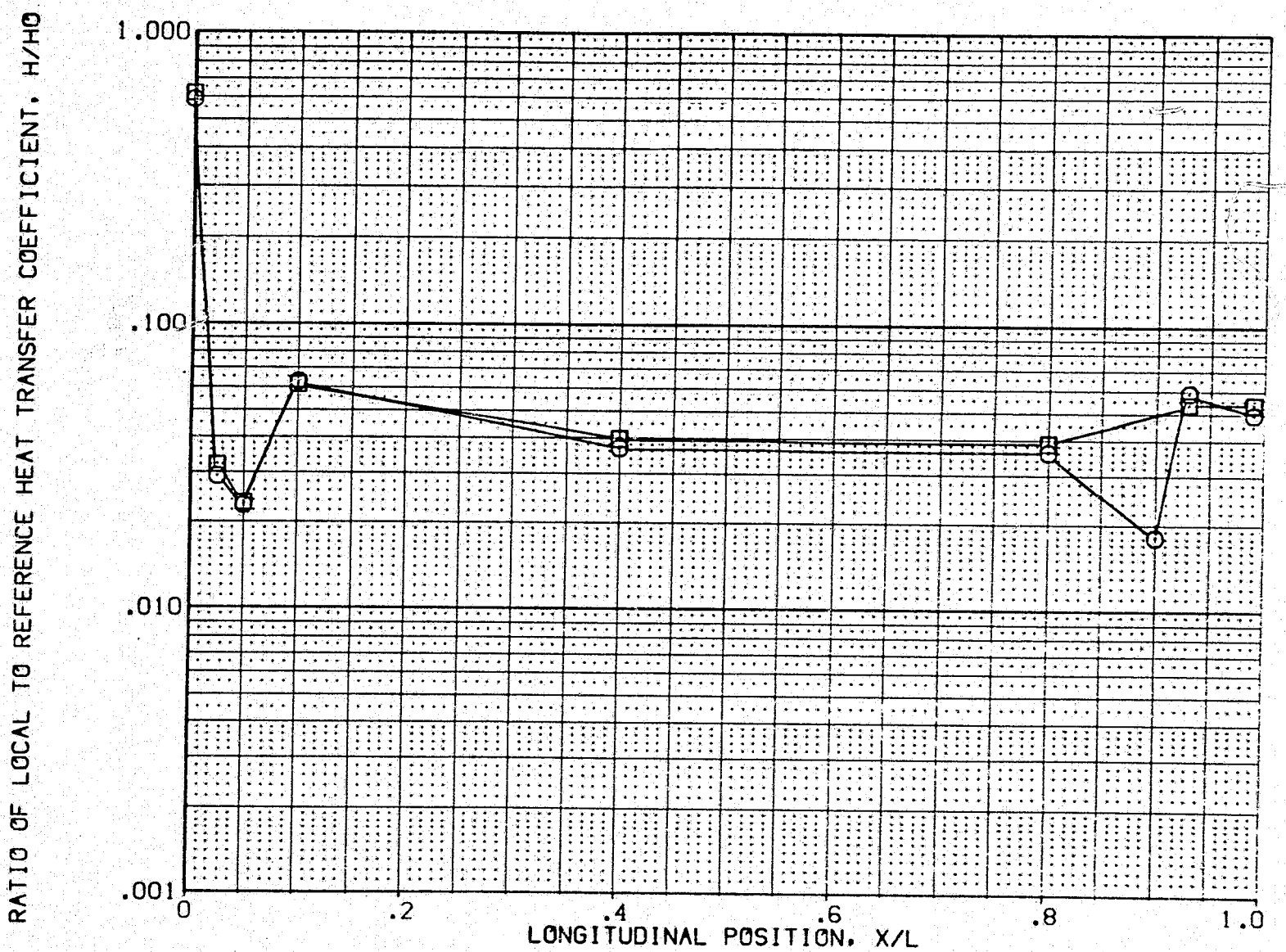


FIG. 5 EFFECT OF REPEATABILITY - SRB

MACH = 5.300 HAW/HT= .900 PSI = 90.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIS16)	○	ARC 3.5-178 IH3 S8	SOLID BOOSTER	20.000	.000	5.300	5.000
(RENS28)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

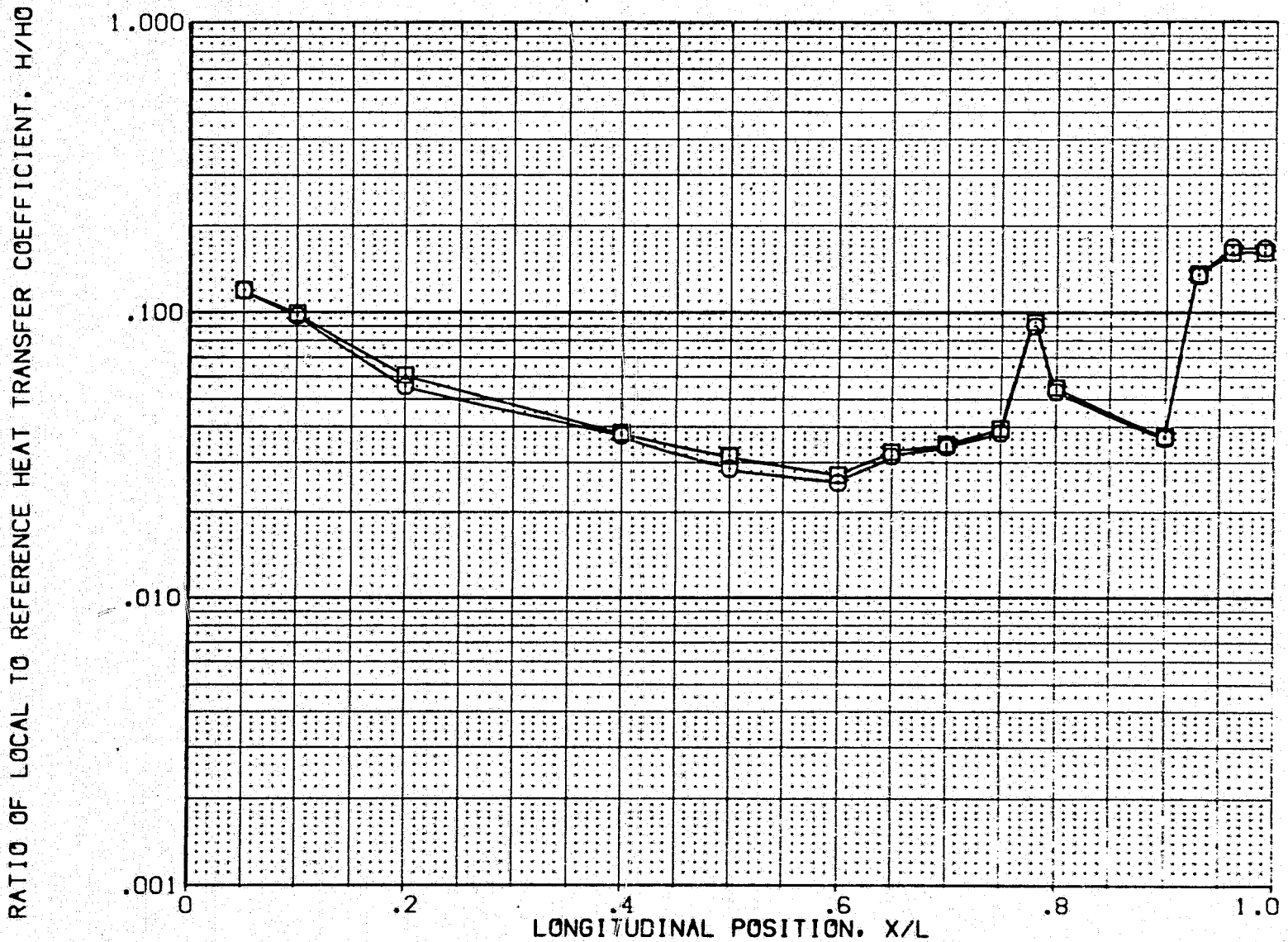


FIG. 5 EFFECT OF REPEATABILITY - SRB

MACH = 5.300 HAW/HT= .900 PSI = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIS16)	○	ARC 3.5-178 IH3 S8	SOLID BOOSTER	20.000	.000	5.300	5.000
(RENS28)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

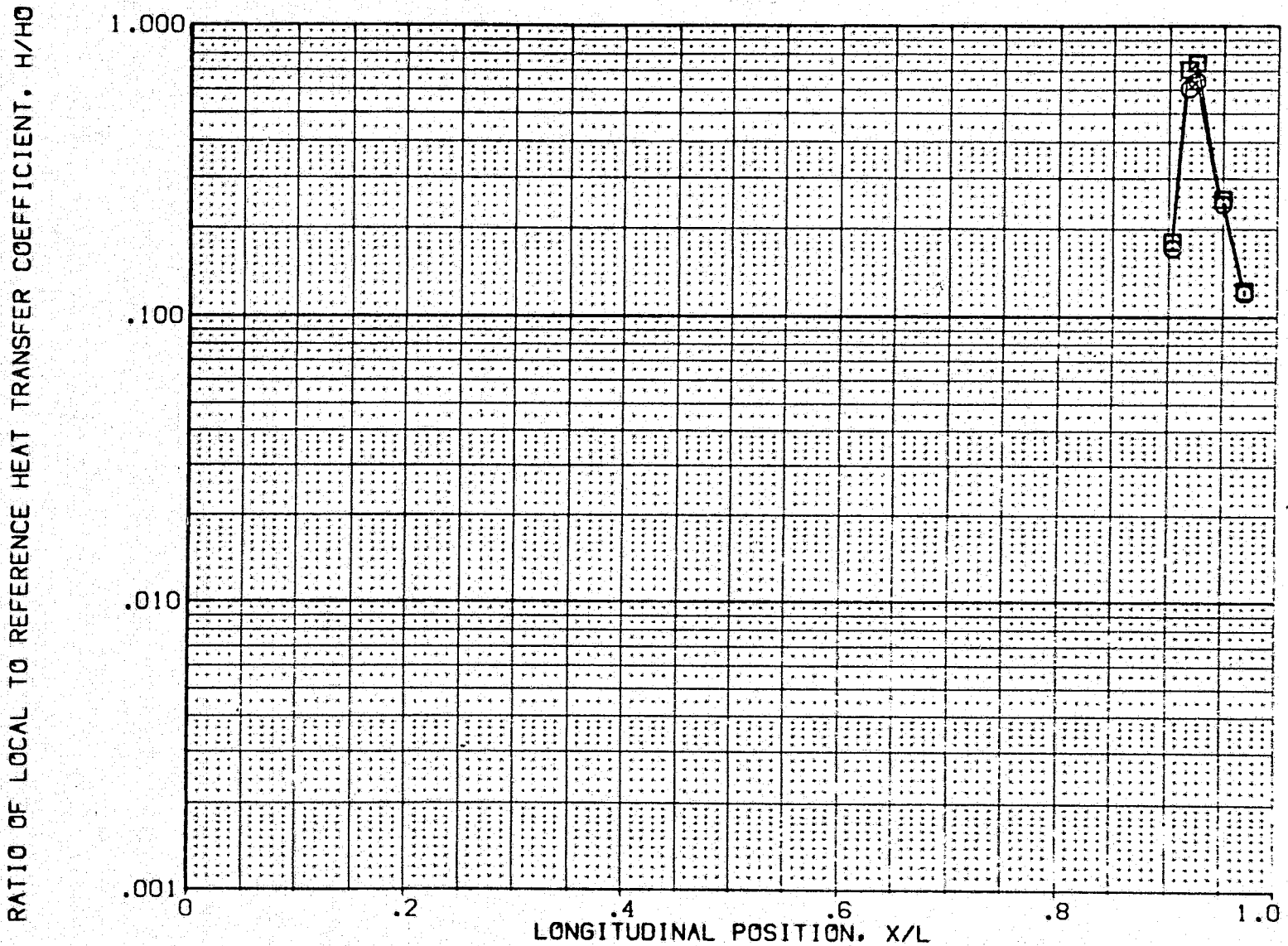


FIG. 5 EFFECT OF REPEATABILITY - SRB

MACH = 5.300 HAW/HT= .900 PSI = 210.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIS16)	○	ARC 3.5-178 1H3 S8	SOLID BOOSTER	20.000	.000	5.300	5.000
(RENS28)	□	ARC 3.5-185 1H20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

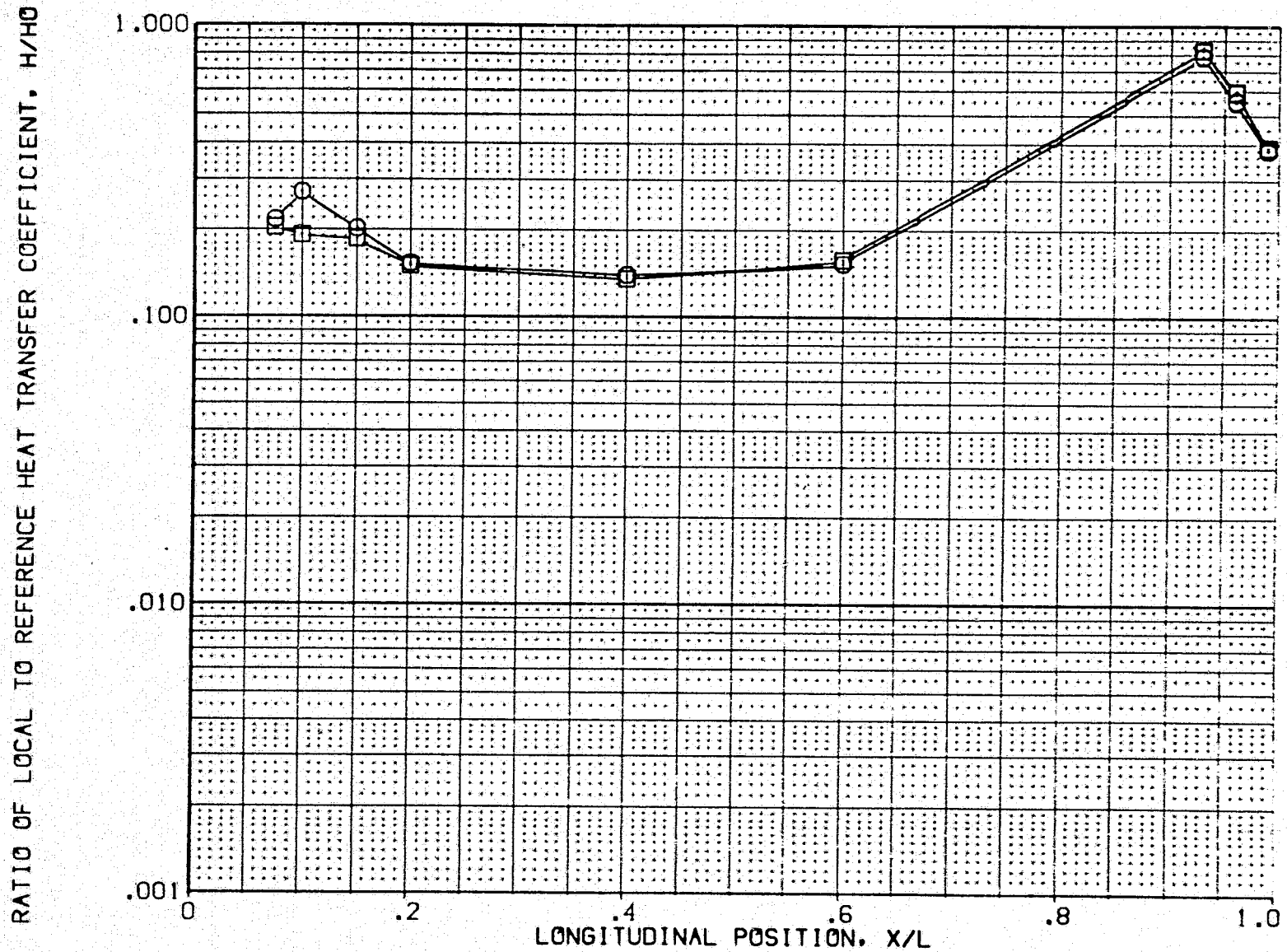


FIG. 5 EFFECT OF REPEATABILITY - SRB

MACH = 5.300 HAW/HT= .900 PSI = 225.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIS16) ○	ARC 3.5-178 IH3 S8	SOLID BOOSTER	20.000	.000	5.300	5.000
(RENS28) □	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

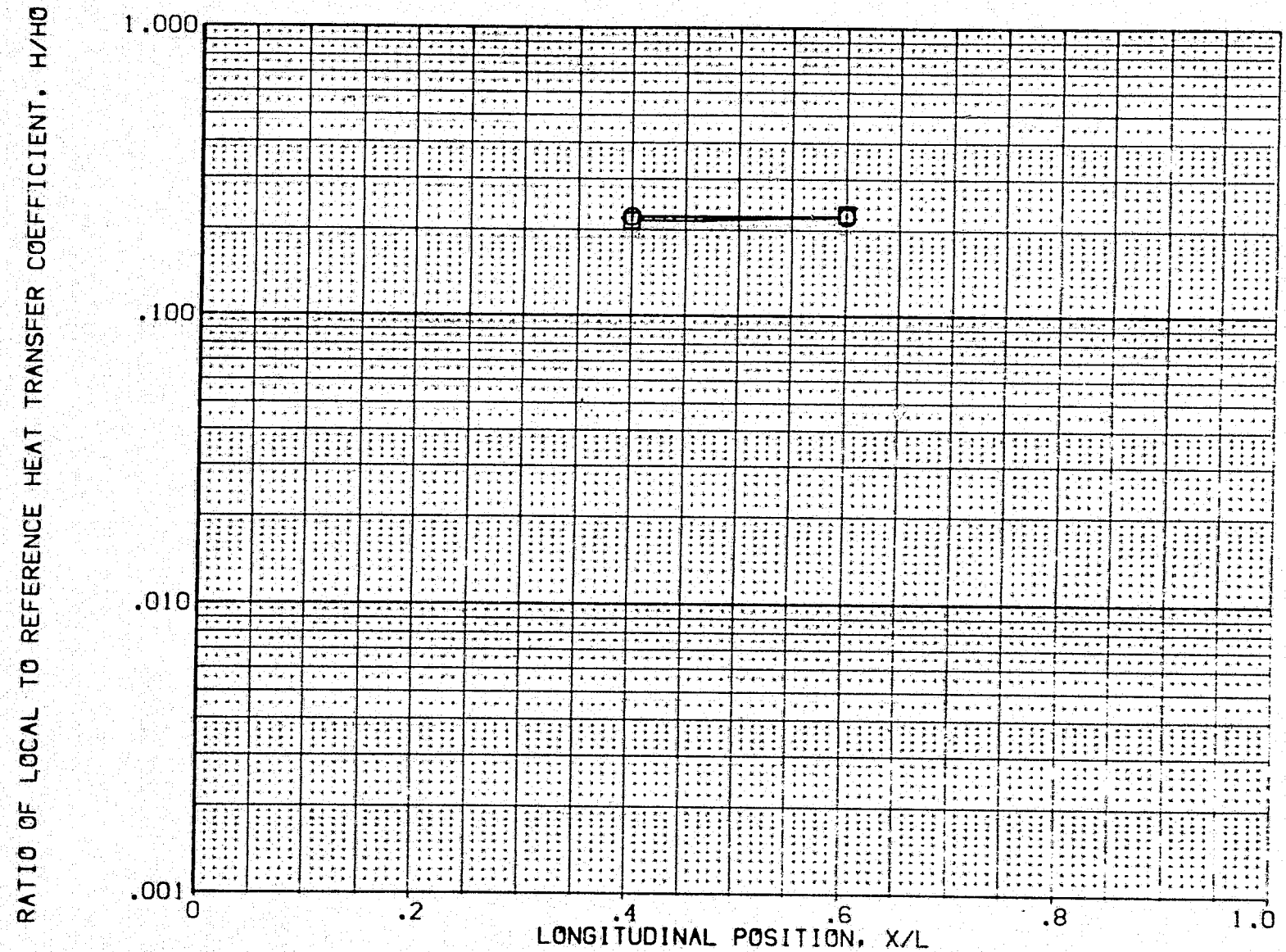


FIG. 5 EFFECT OF REPEATABILITY - SRB

MACH = 5.300 HAW/HT= .900 PSI = 247.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REIS16)	○	ARC 3.5-178 IH3 S8	SOLID BOOSTER	20.000	.000	5.300	5.000
(RENS28)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

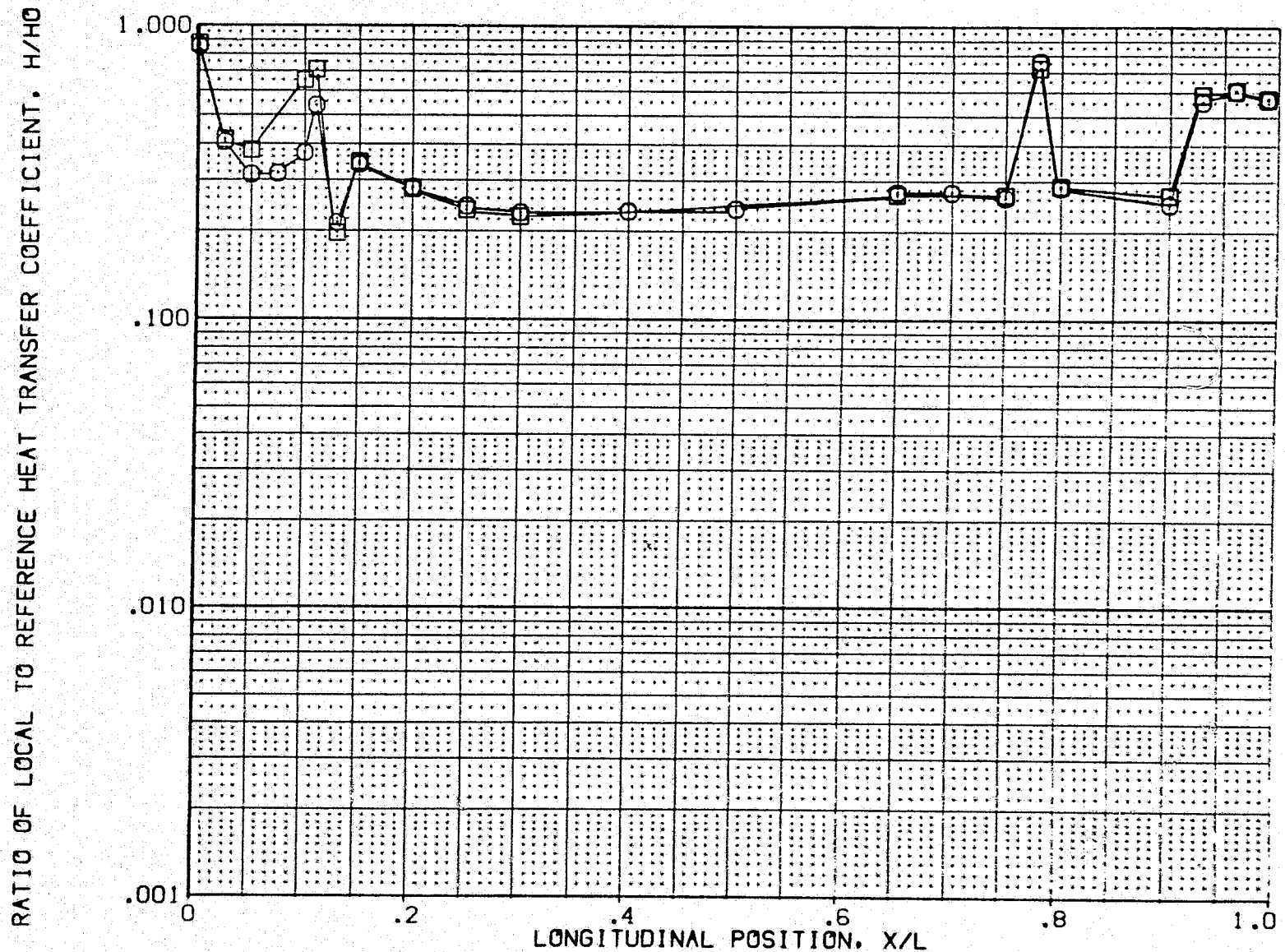


FIG. 5 EFFECT OF REPEATABILITY - SRB

MACH = 5.300 HAW/HT= .900 PSI = 270.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RE1S16)	○	ARC 3.5-178 IH3 S8	SOLID BOOSTER	20.000	.000	5.300	5.000
(RENS28)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

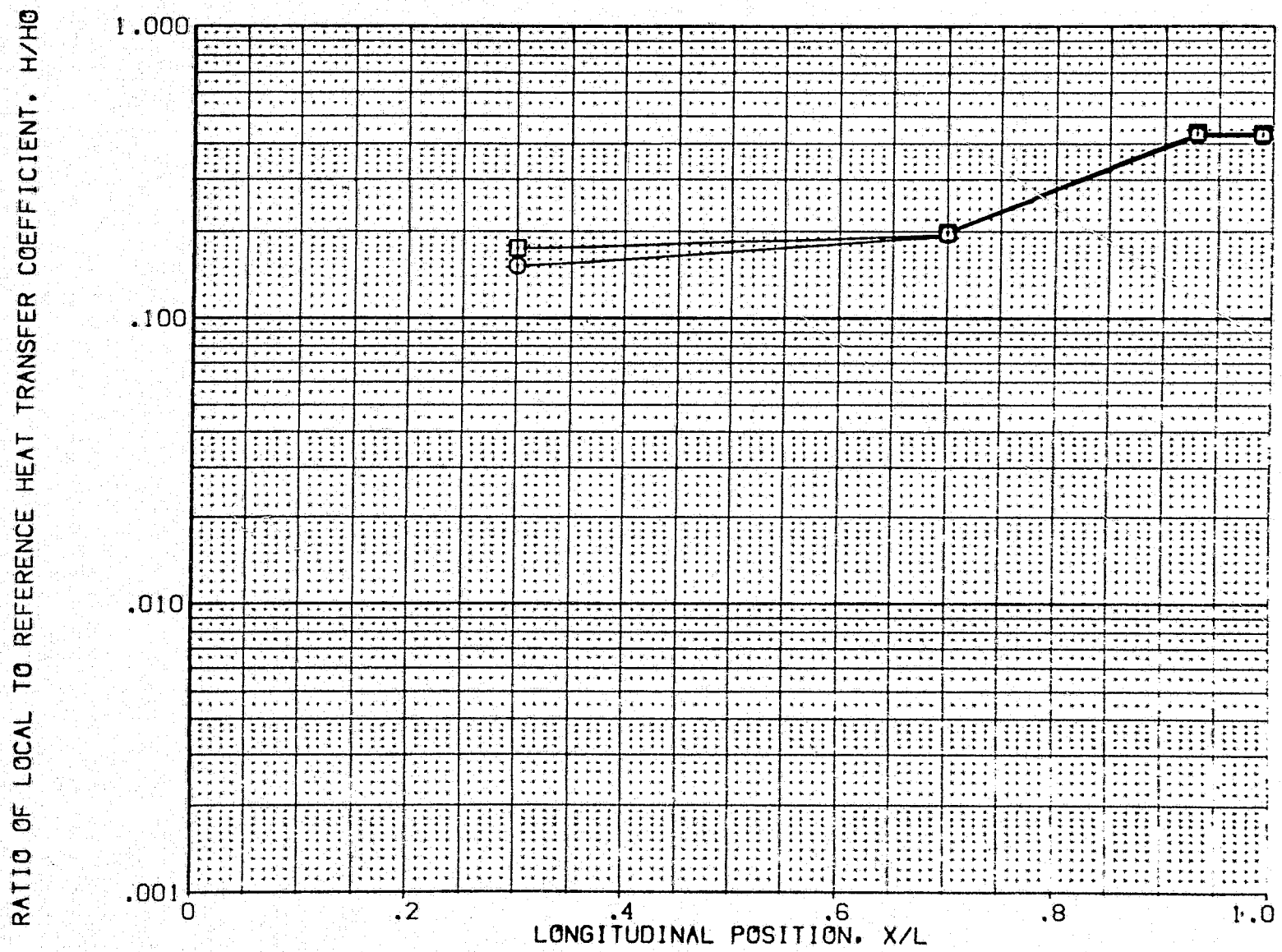


FIG. 5 EFFECT OF REPEATABILITY - SRB.

MACH = 5.300 HAW/HT= .900 PSI = 315.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT03)	○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	-5.000	5.300	5.000
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

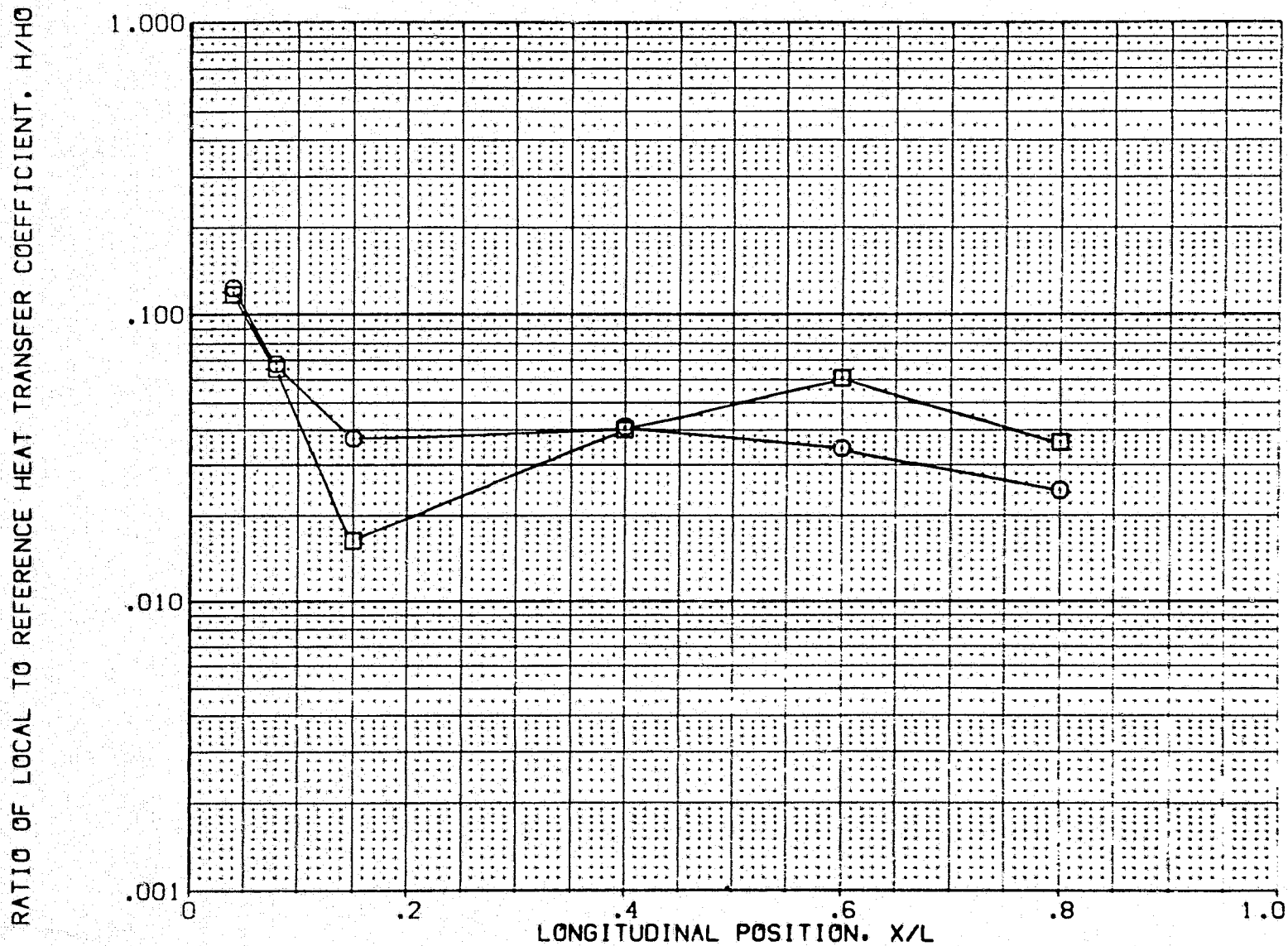


FIG. 6 EFFECT OF BETA - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT03) ○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	-5.000	5.300	5.000
(RENT02) □	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

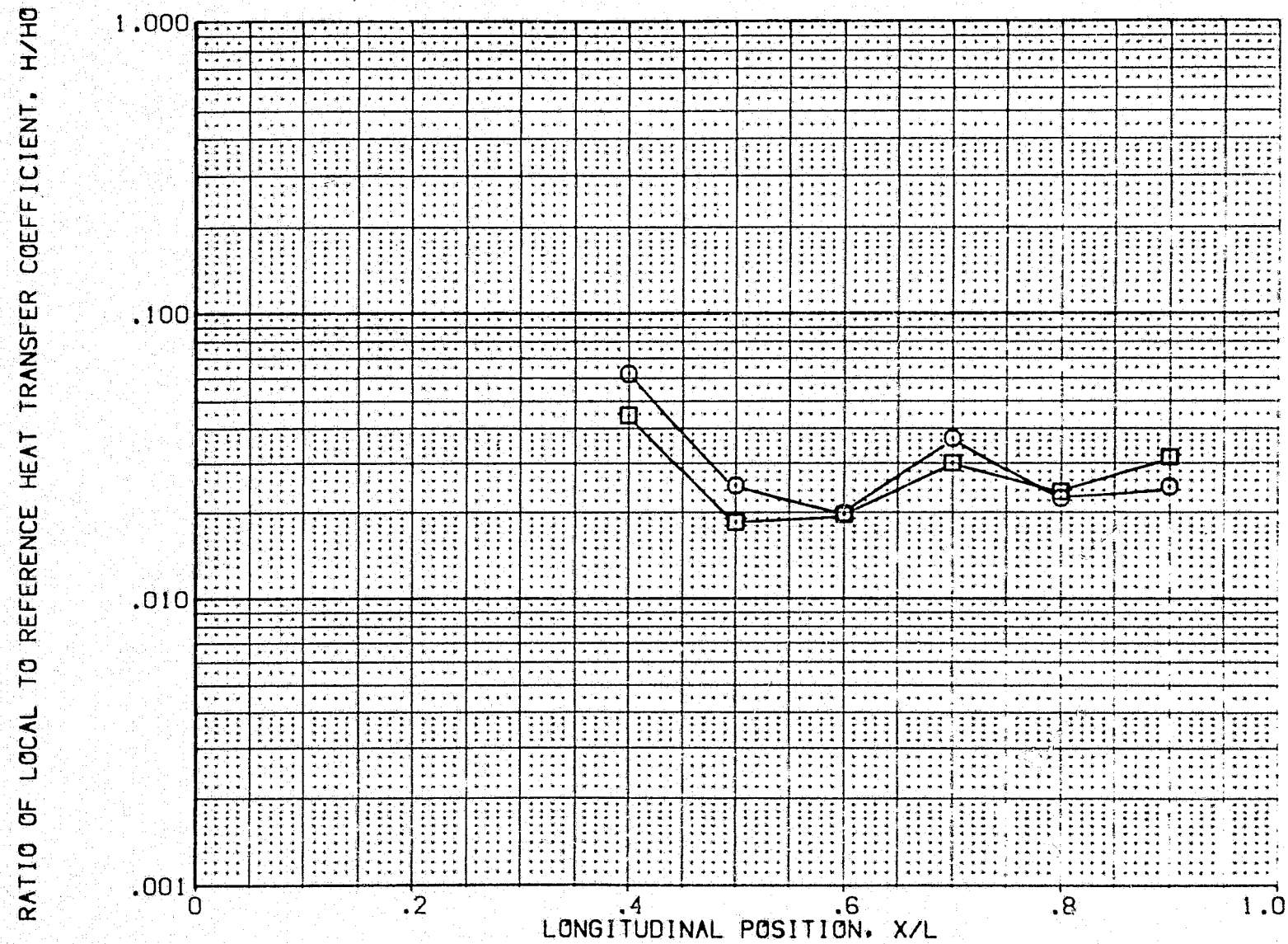


FIG. 6 EFFECT OF BETA - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 45.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT03)	○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	-5.000	5.300	5.000
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

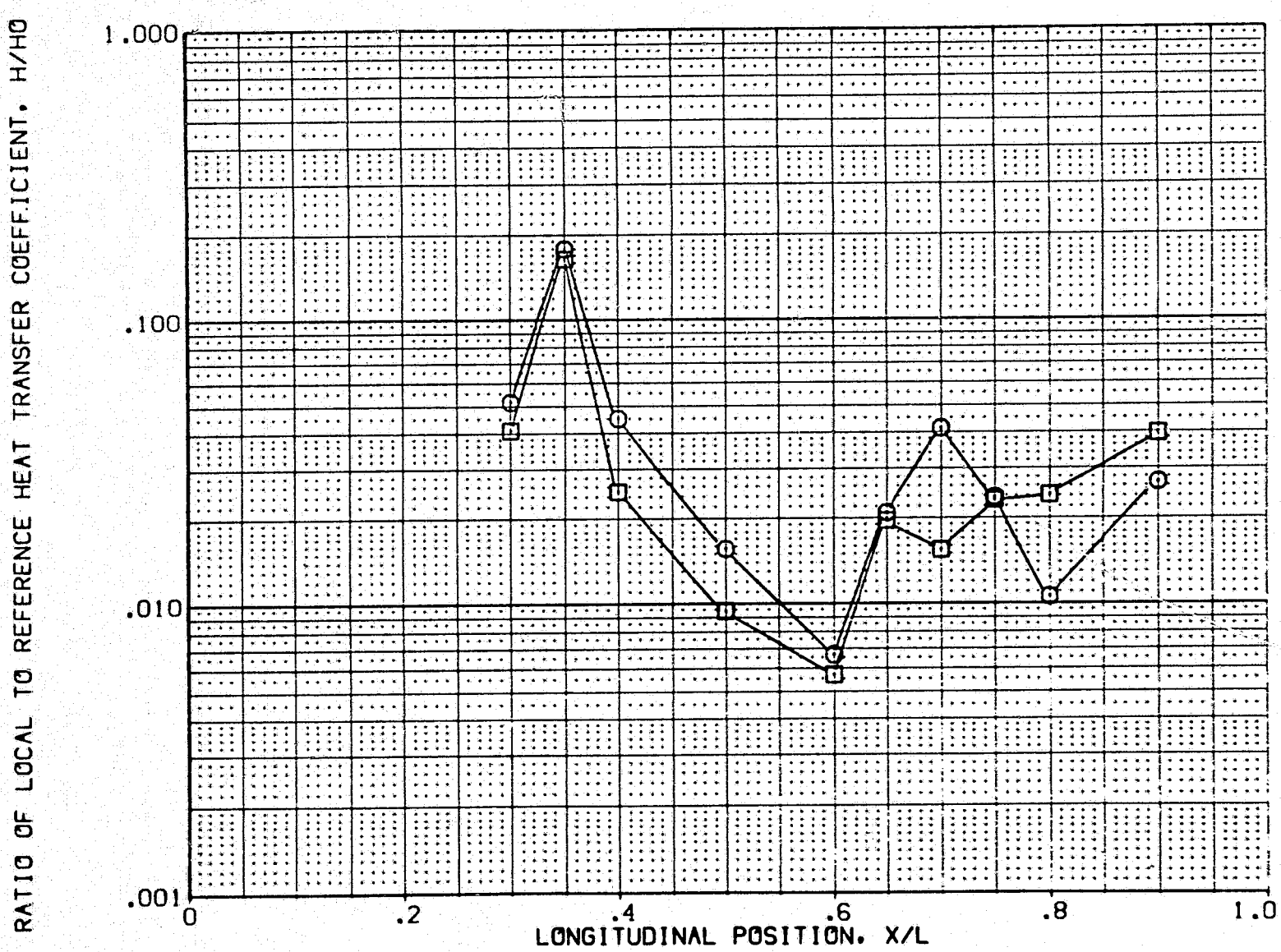


FIG. 6 EFFECT OF BETA - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 67.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT03)	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	-5.000	5.300	5.000
(RENY02)	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

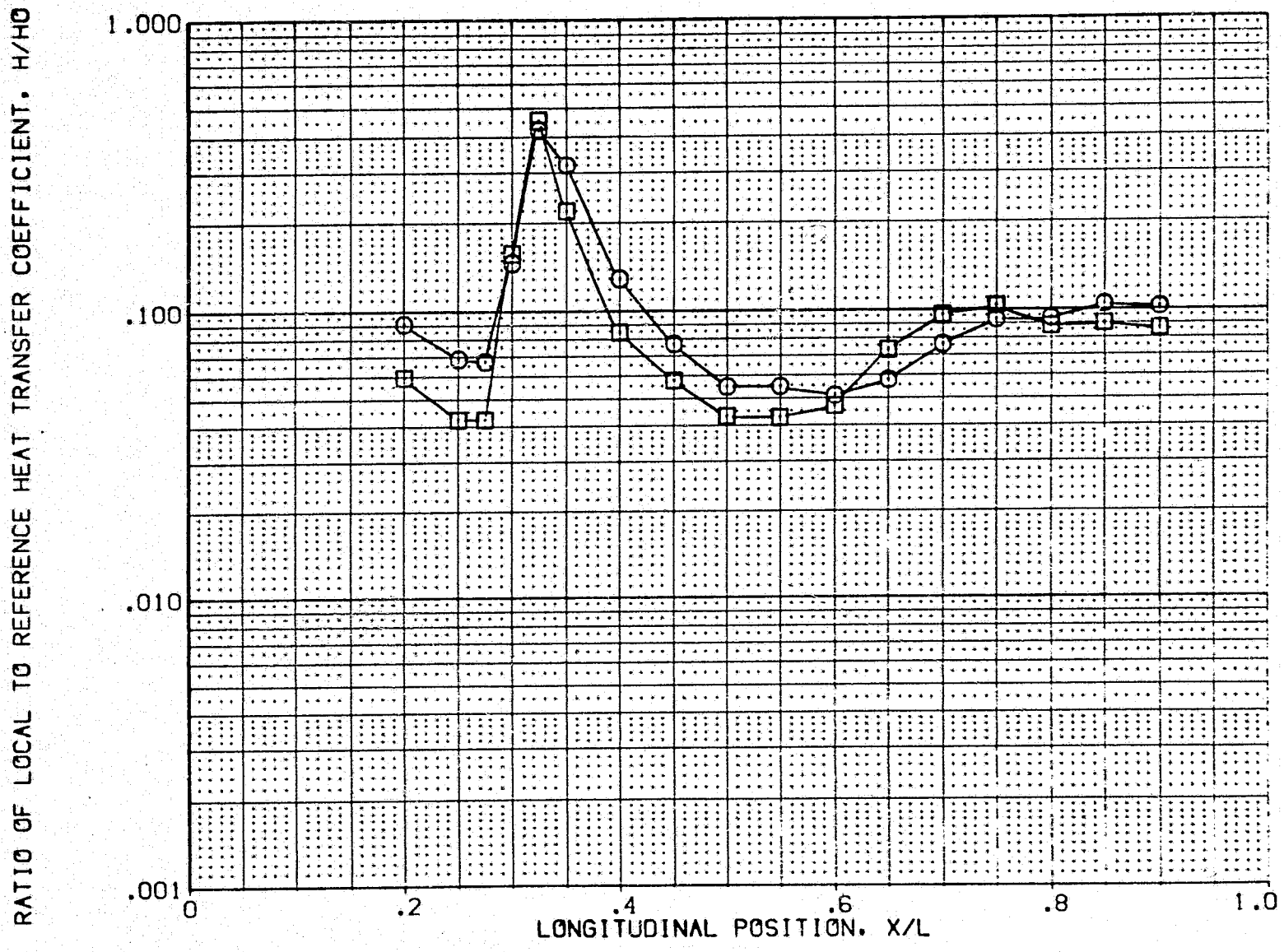


FIG. 6 EFFECT OF BETA - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT03) ○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	-5.000	5.300	5.000
(RENT02) □	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

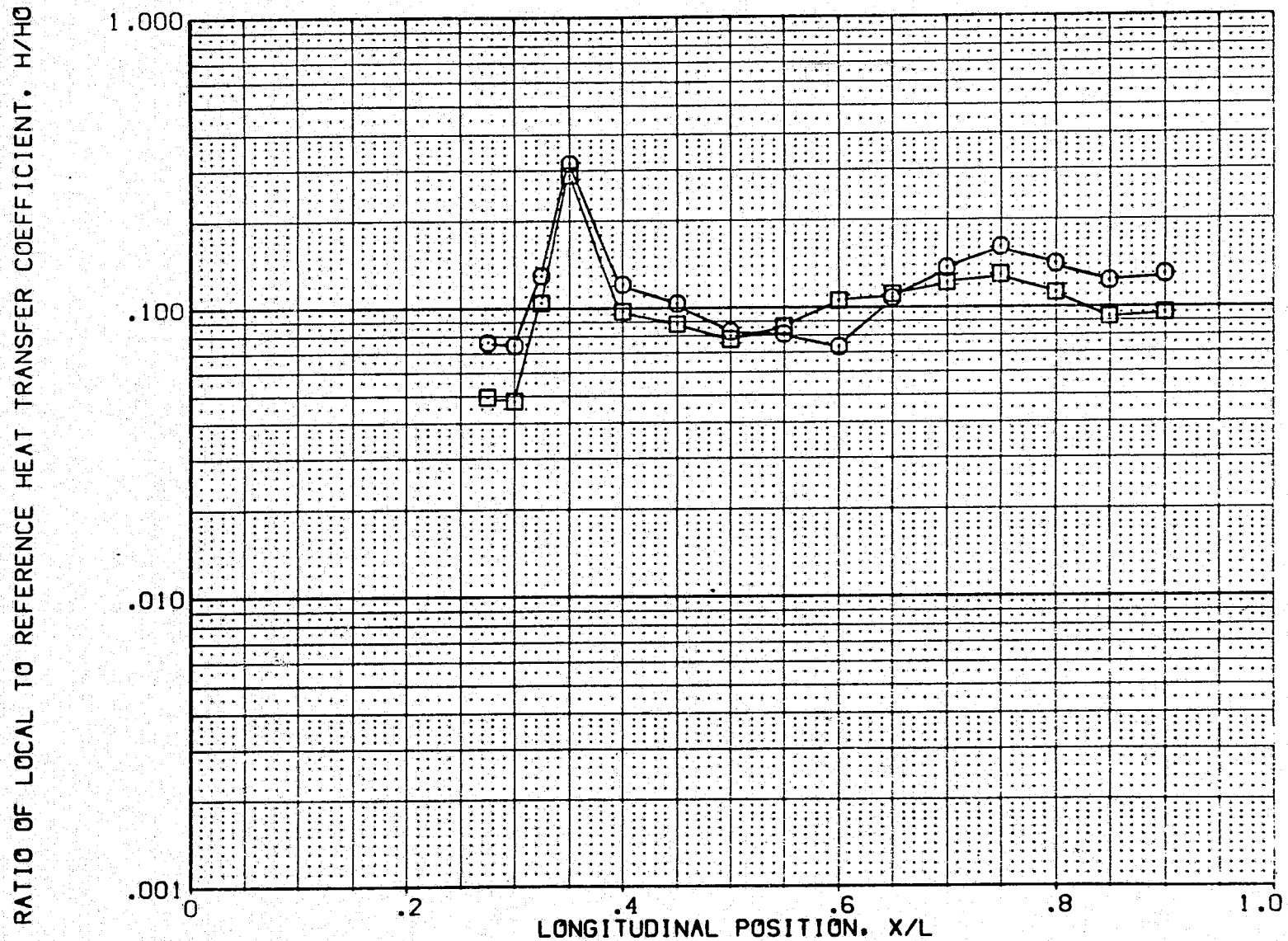


FIG. 6 EFFECT OF BETA - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 112.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT03)	○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	-5.000	5.300	5.000
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

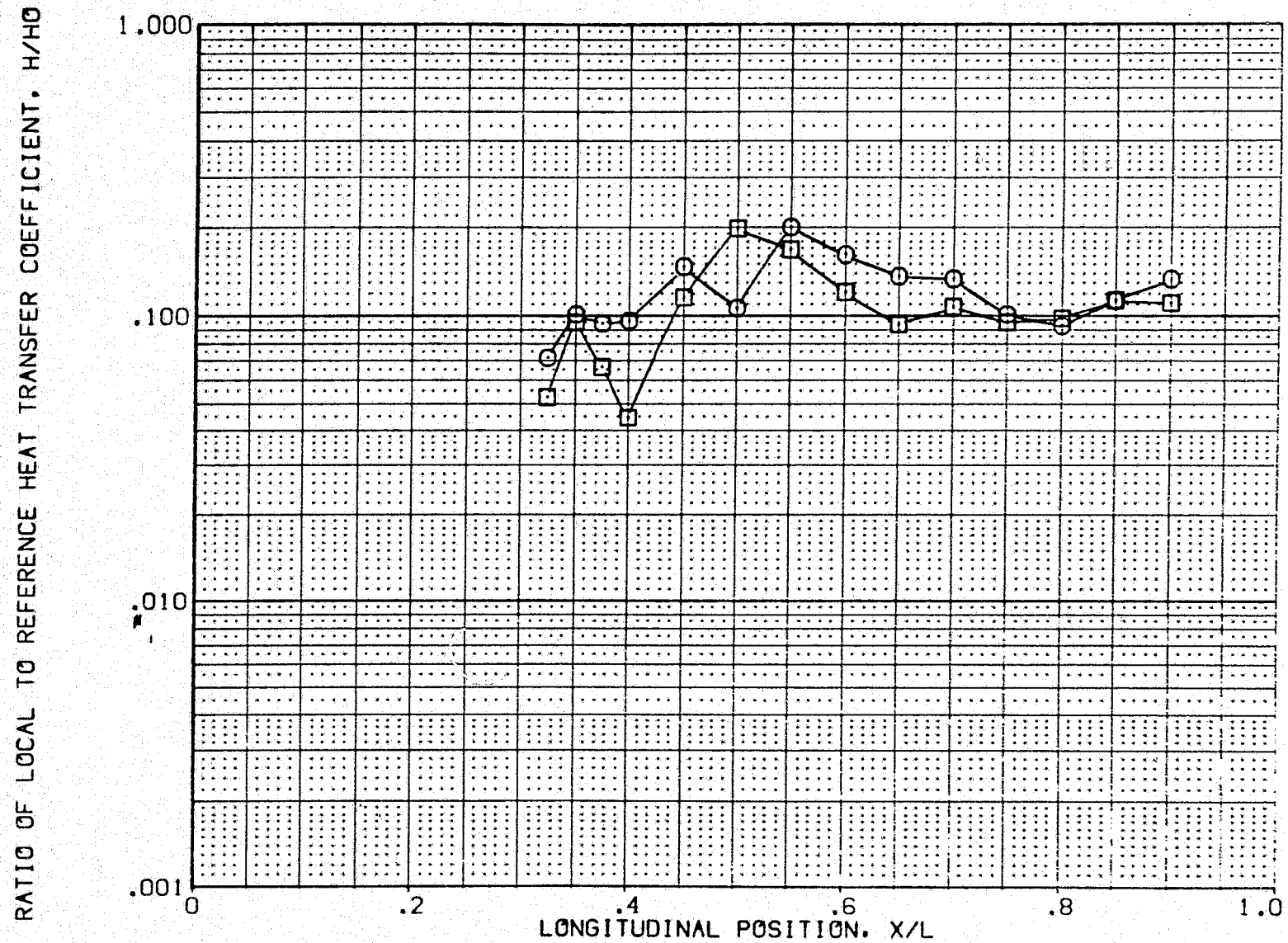


FIG. 6 EFFECT OF BETA - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 135.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT03)	○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	-5.000	5.300	5.000
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

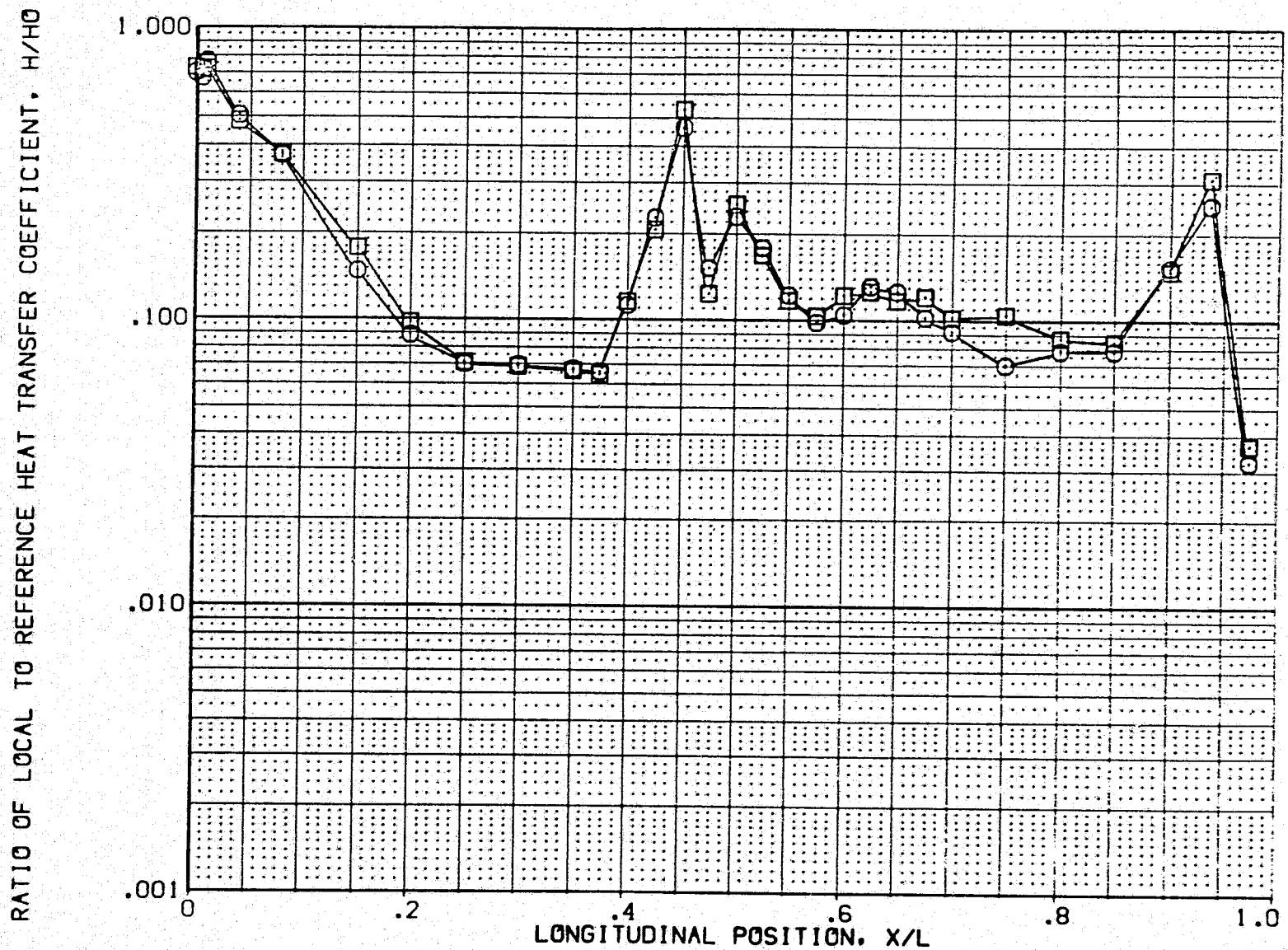


FIG. 6 EFFECT OF BETA - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS03) ○	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	-5.000	5.300	5.000
(RENS02) □	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

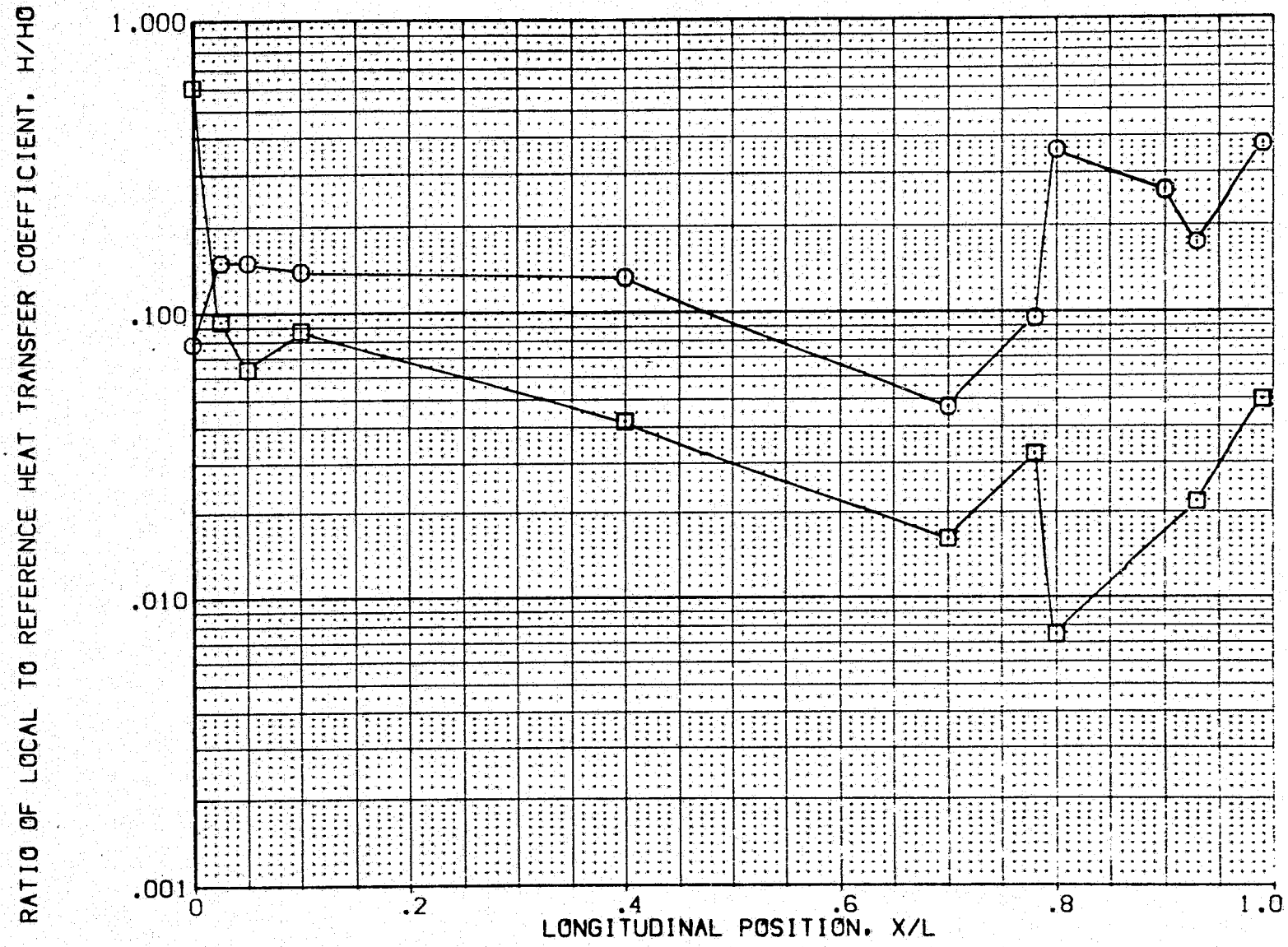


FIG. 7 EFFECT OF BETA - SRB

MACH = 5.300 HAW/HT= .900 PSI = 90.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS03)	○	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	-5.000	5.300	5.000
(RENS02)	□	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

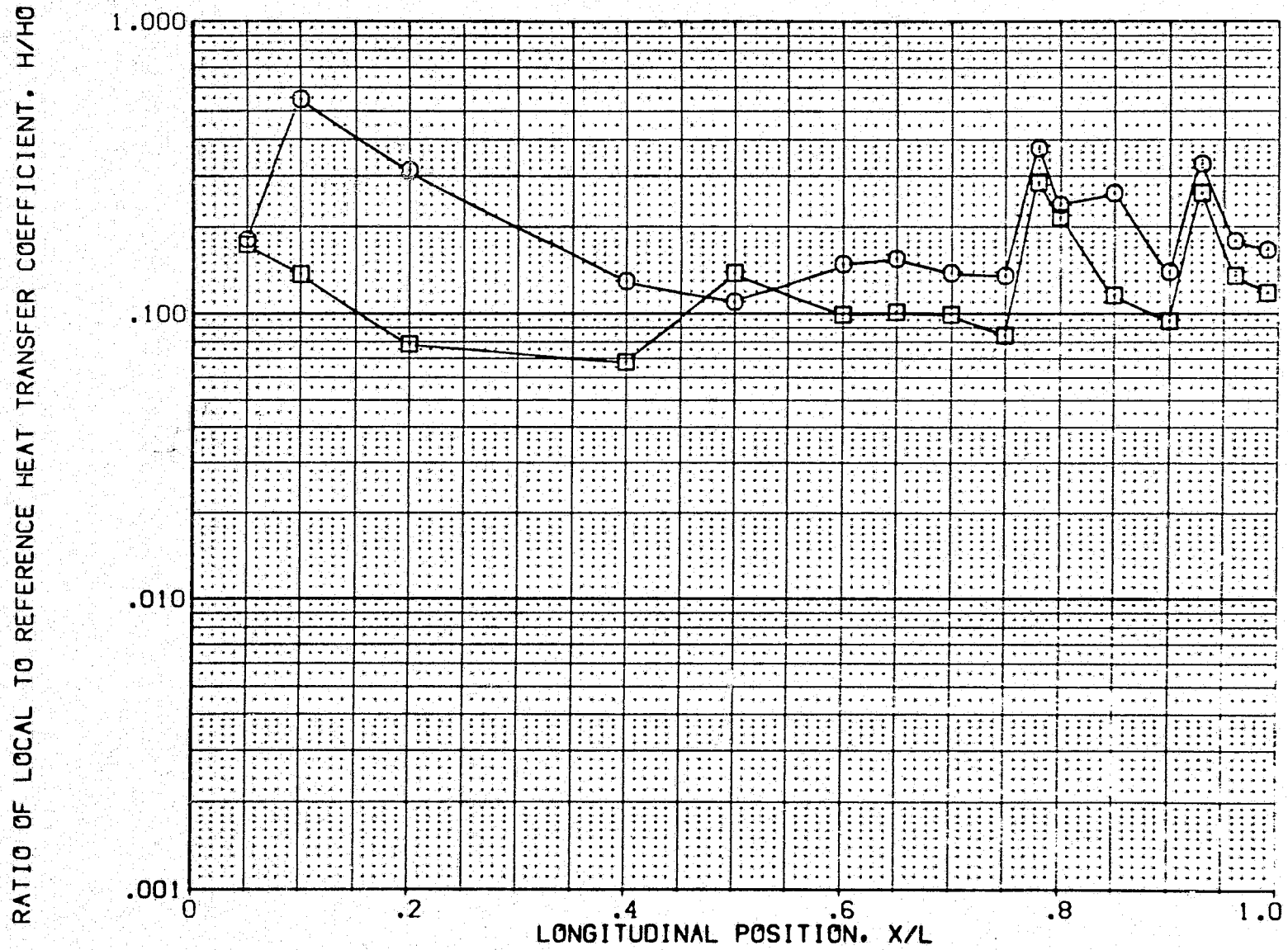


FIG. 7 EFFECT OF BETA - SRB

MACH = 5.300 HAW/HT= .900 PSI = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS03) ○	ARC 3.5-185 IH20 01+T15+S6	SOLID BOOSTER	-5.000	-5.000	5.300	5.000
(RENS02) □	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

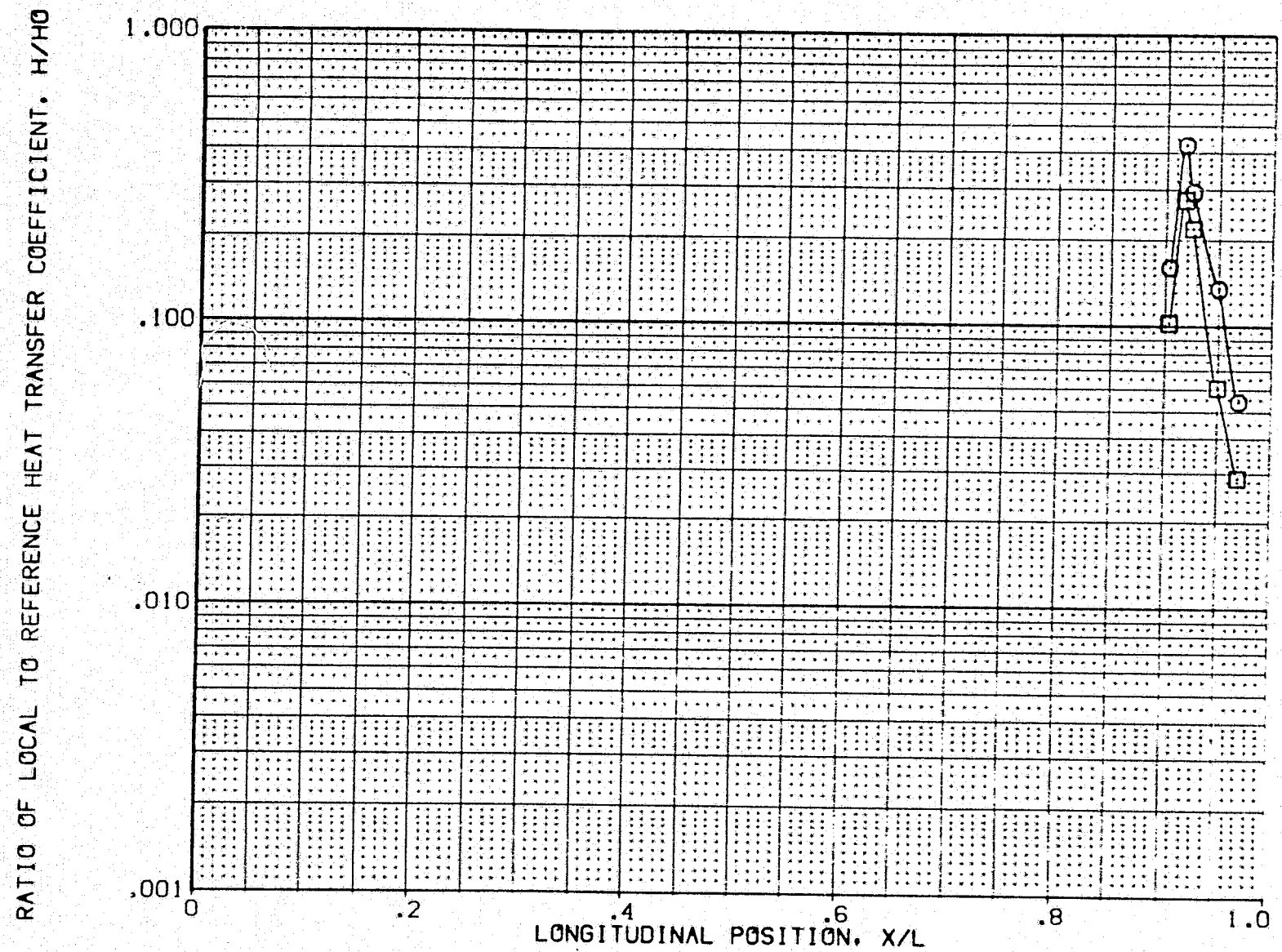


FIG. 7 EFFECT OF BETA - SRB

MACH = 5.300 HAW/HT= .900 PSI = 210.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS03) ○	ARC 3.5-185 1H20 01+T15+S8	SOLID BOOSTER	-5.000	-5.000	5.300	5.000
(RENS02) □	ARC 3.5-185 1H20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

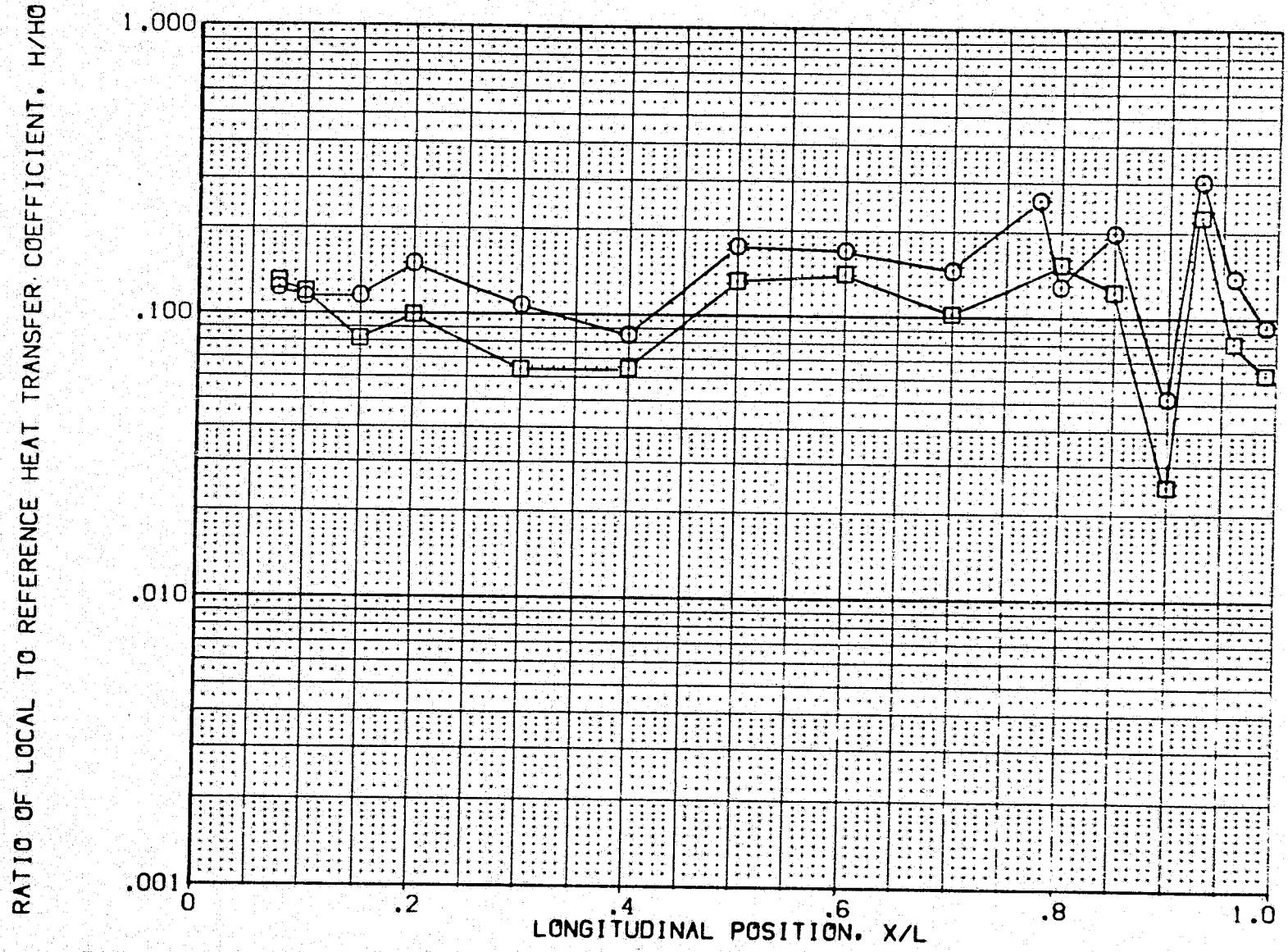


FIG. 7 EFFECT OF BETA - SRB

MACH = 5.300 HAW/HT= .900 PSI = 225.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS03)	○	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	-5.000	5.300	5.000
(RENS02)	□	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

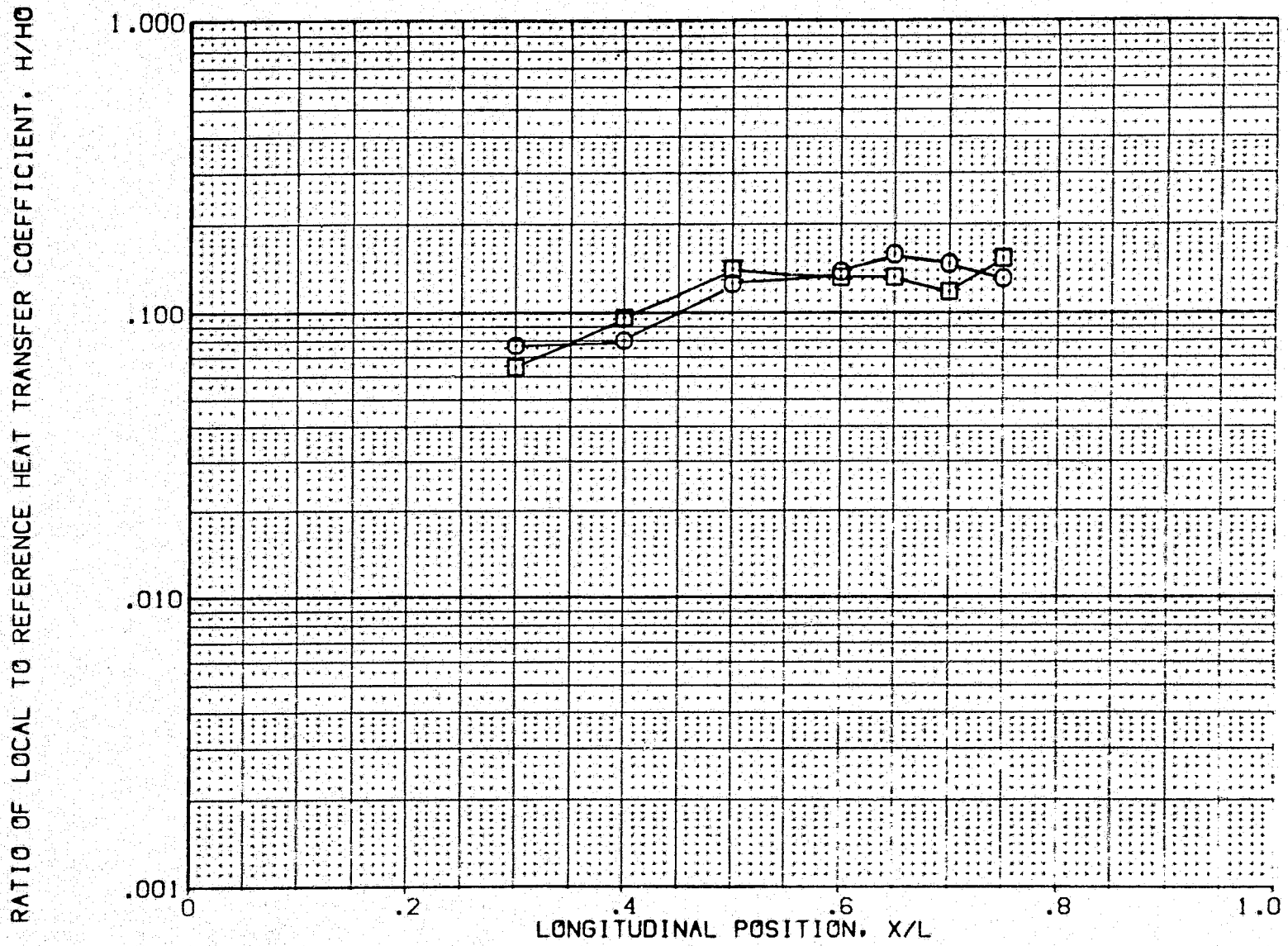


FIG. 7 EFFECT OF BETA - SRB

MACH = 5.300 HAW/HT= .900 PSI = 247.500

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS03)	○	ARC 3.5-18S IH20 01+T15+S8	SOLID BOOSTER	-5.000	-5.000	5.300	5.000
(RENS02)	□	ARC 3.5-18S IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

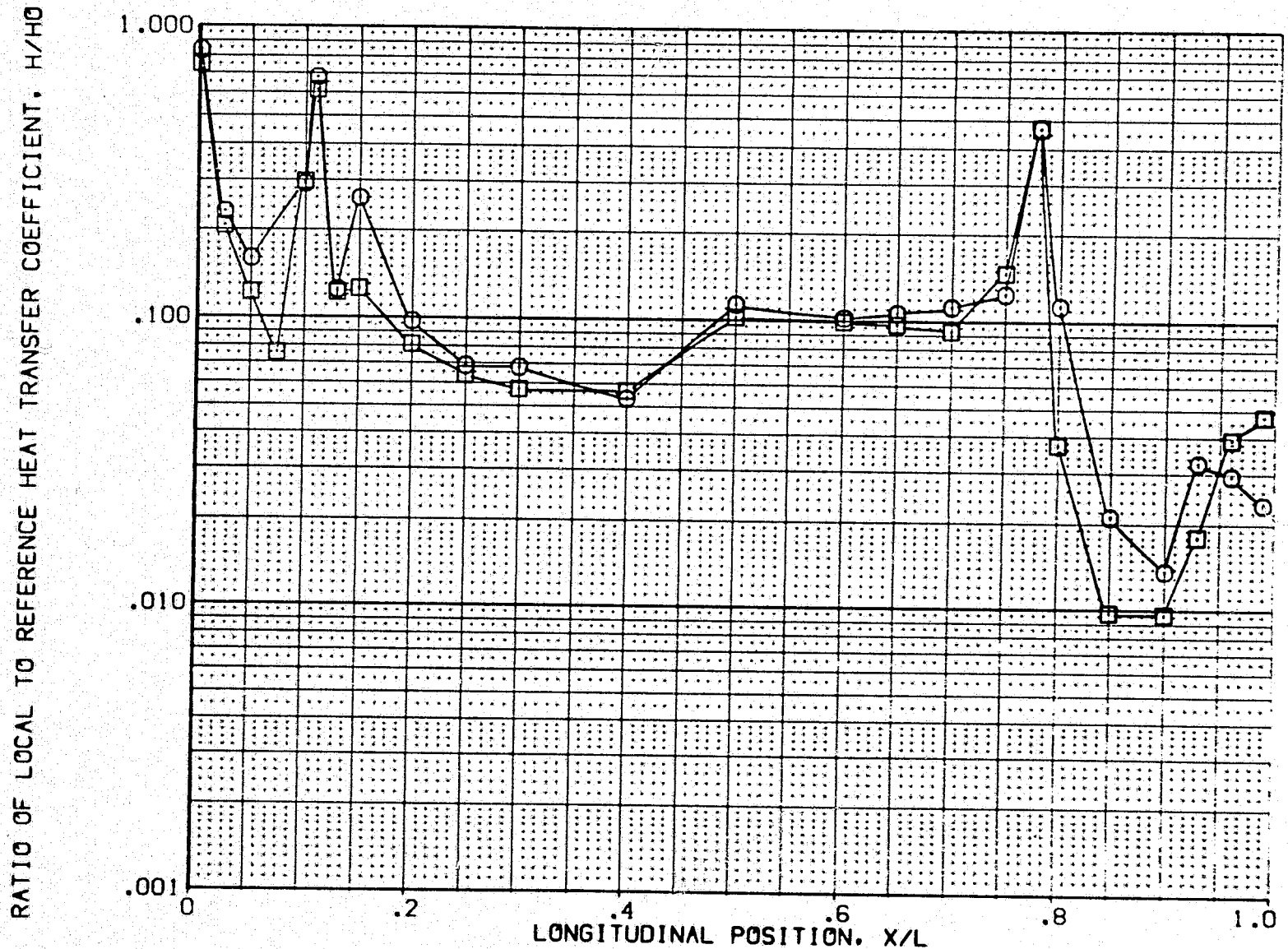


FIG. 7 EFFECT OF BETA - SRB

MACH = 5.300 HAW/HT= .900 PSI = 270.000

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS03)	○	ARC 3.5-185 1H20 01+T15+SB	SOLID BOOSTER	-5.000	-5.000	5.300	5.000
(RENS02)	□	ARC 3.5-185 1H20 01+T15+SB	SOLID BOOSTER	-5.000	.000	5.300	5.000

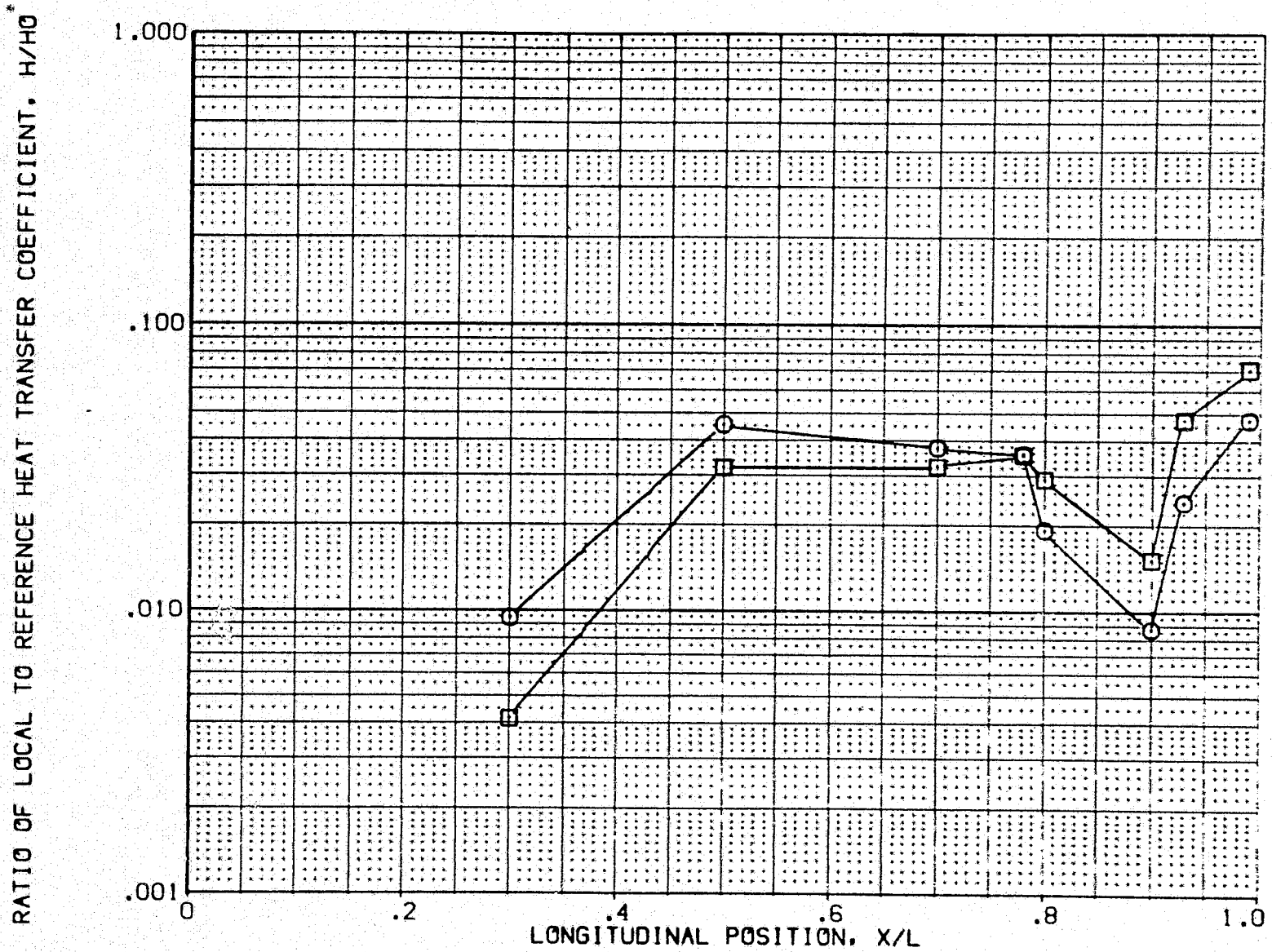


FIG. 7 EFFECT OF BETA - SRB

MACH = 5.300 HAW/HT= .900 PSI = 315.000

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENA03)	○	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=0.0	-5.000	-5.000	5.300	5.000
(RENA02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=0.0	-5.000	.000	5.300	5.000

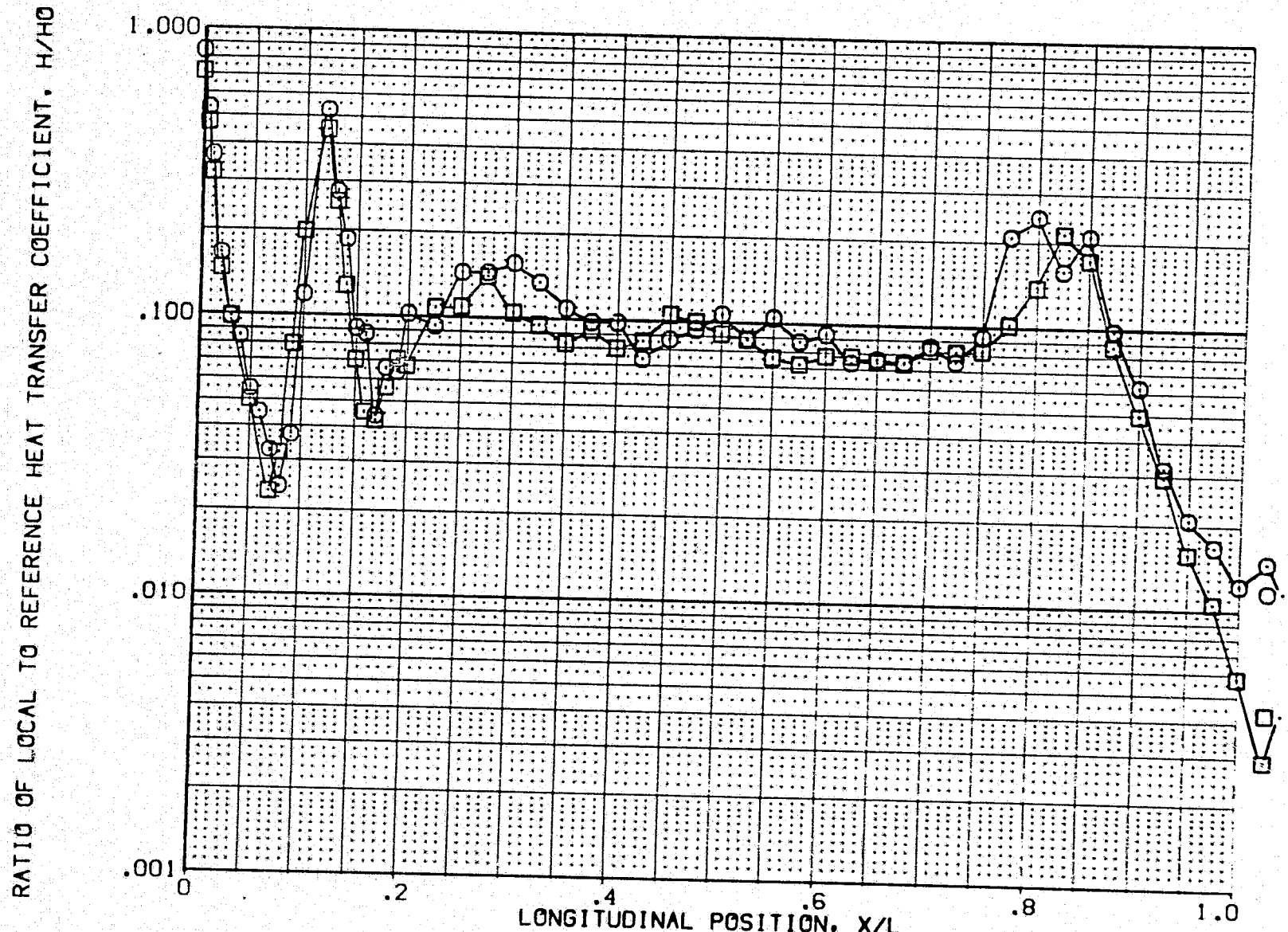


FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 PHI = .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENC03)	○	ARC 3.5-185 IH20 01+T15+S8	ORB Y=0.875	-5.000	-5.000	5.300	5.000
(RENC02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB Y=0.875	-5.000	.000	5.300	5.000

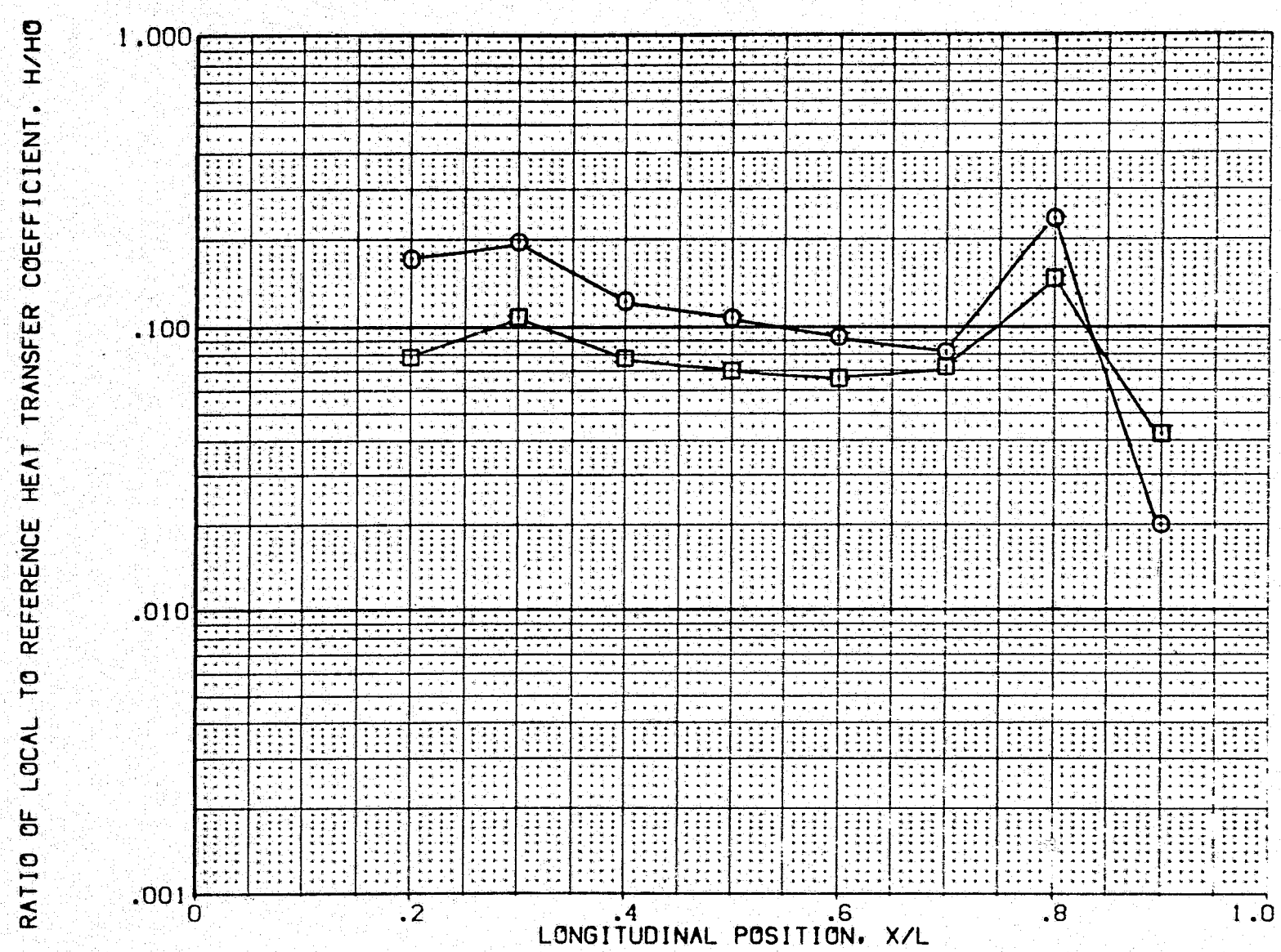


FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 Y = .875

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENH03)	○	ARC 3.5-185 IH20 01+T15+S8	ORB Z=7.525	-5.000	-5.000	5.300	5.000
(RENH02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB Z=7.525	-5.000	.000	5.300	5.000

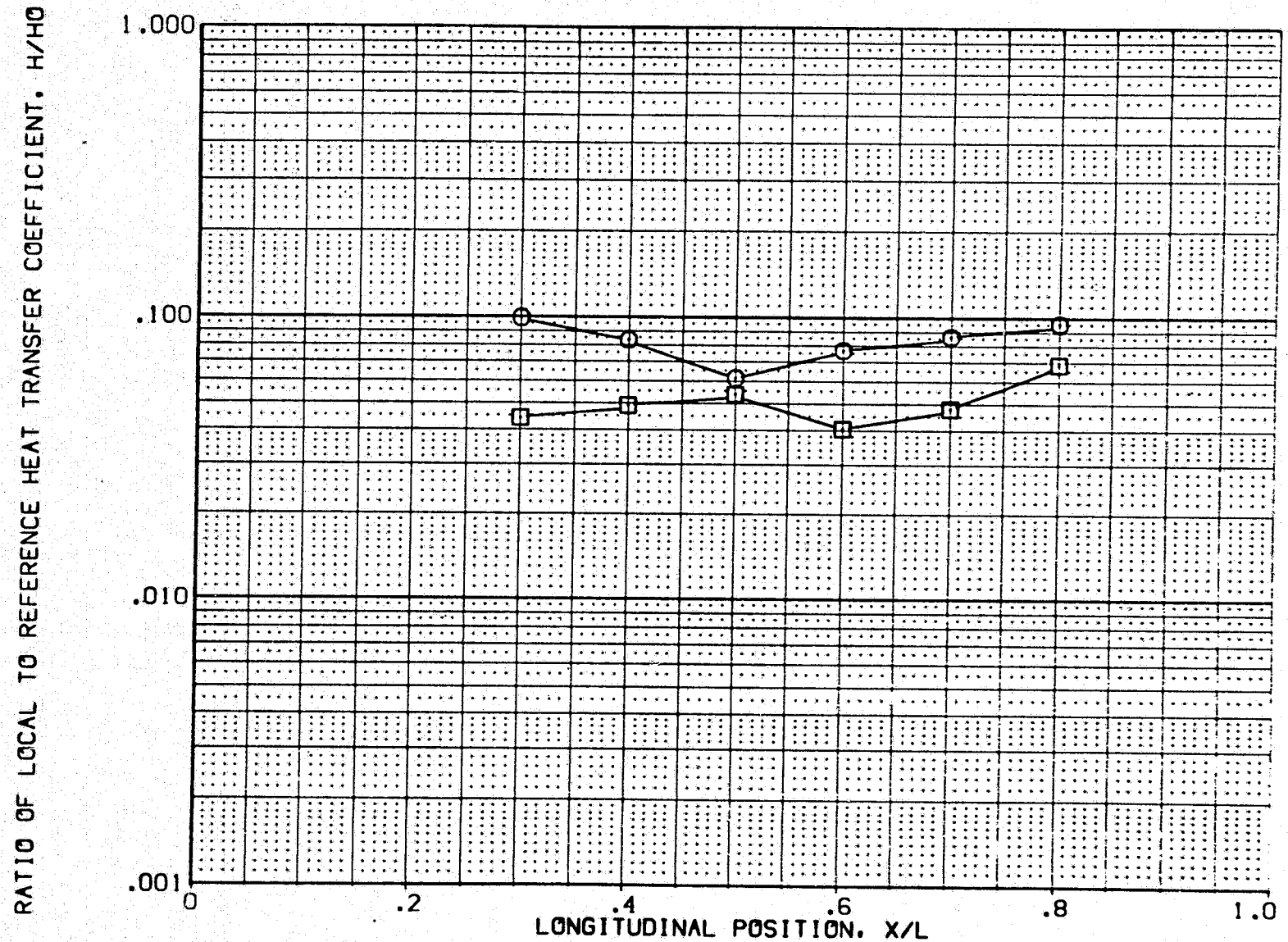


FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.525

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN103)	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	-5.000	5.300	5.000
(REN102)	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	.000	5.300	5.000

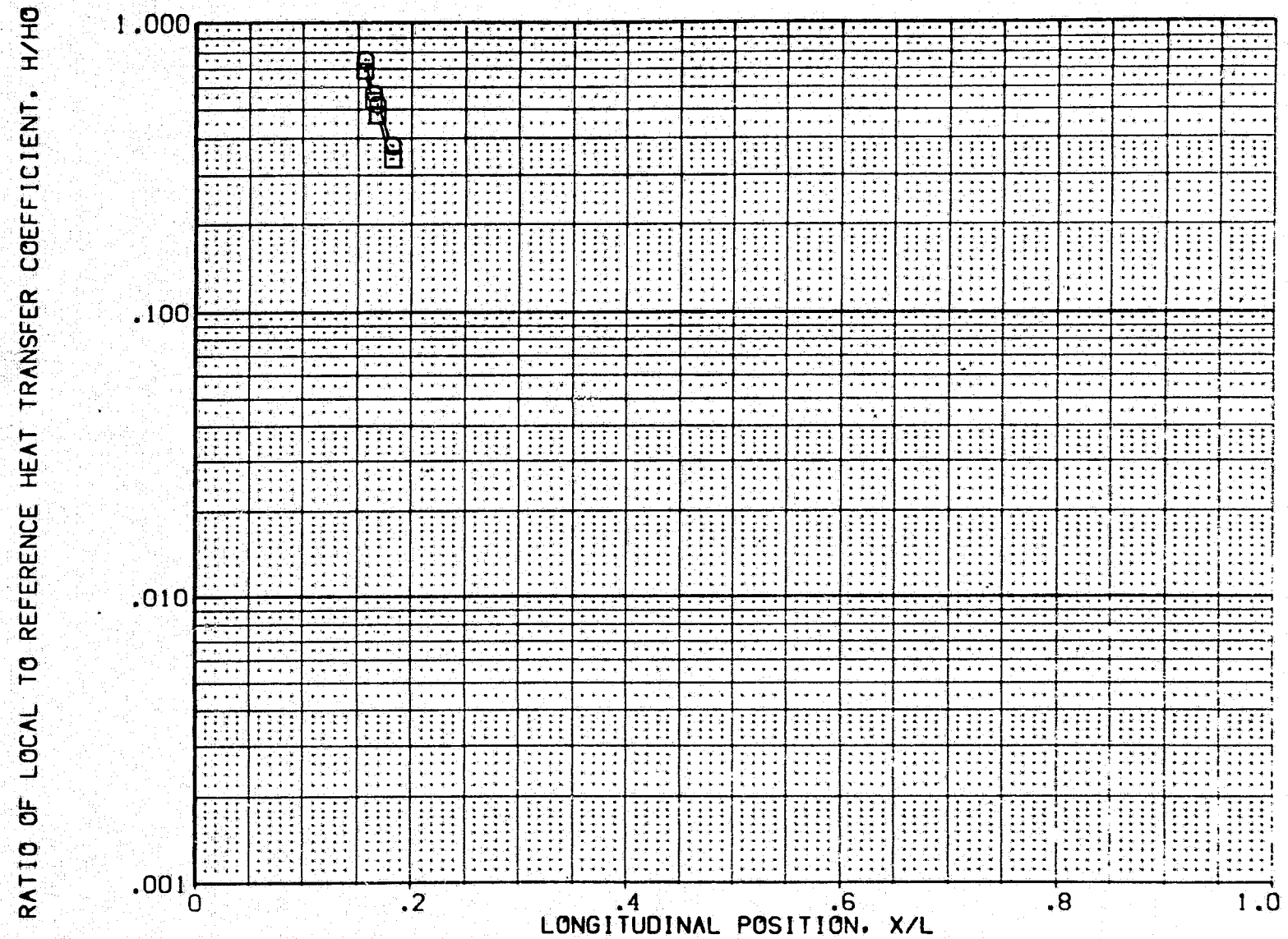


FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.910

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN103)	○	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	-5.000	5.300	5.000
(REN102)	□	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	.000	5.300	5.000

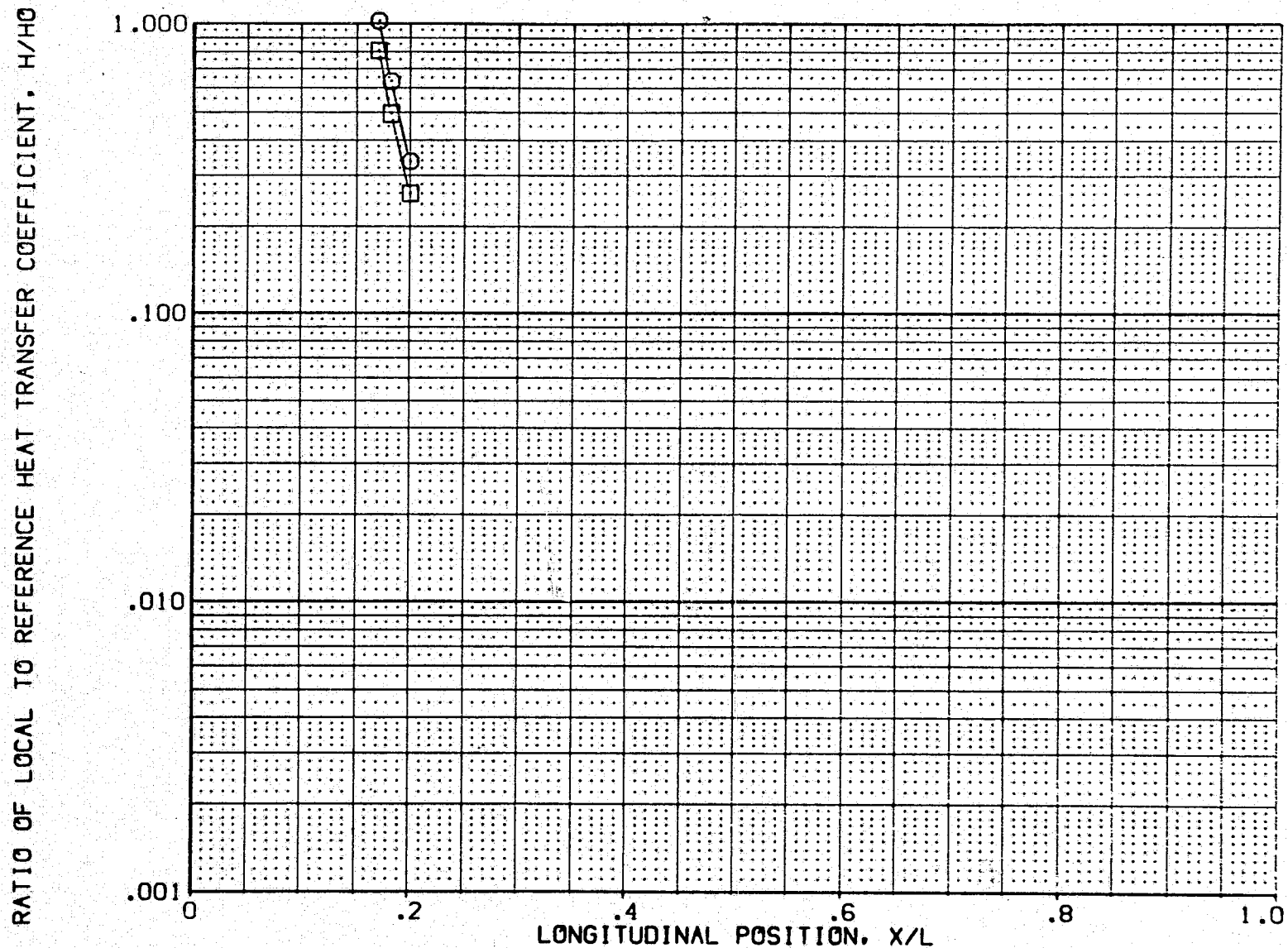


FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.137

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN103)	○	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	-5.000	5.300	5.000
(REN102)	□	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	.000	5.300	5.000

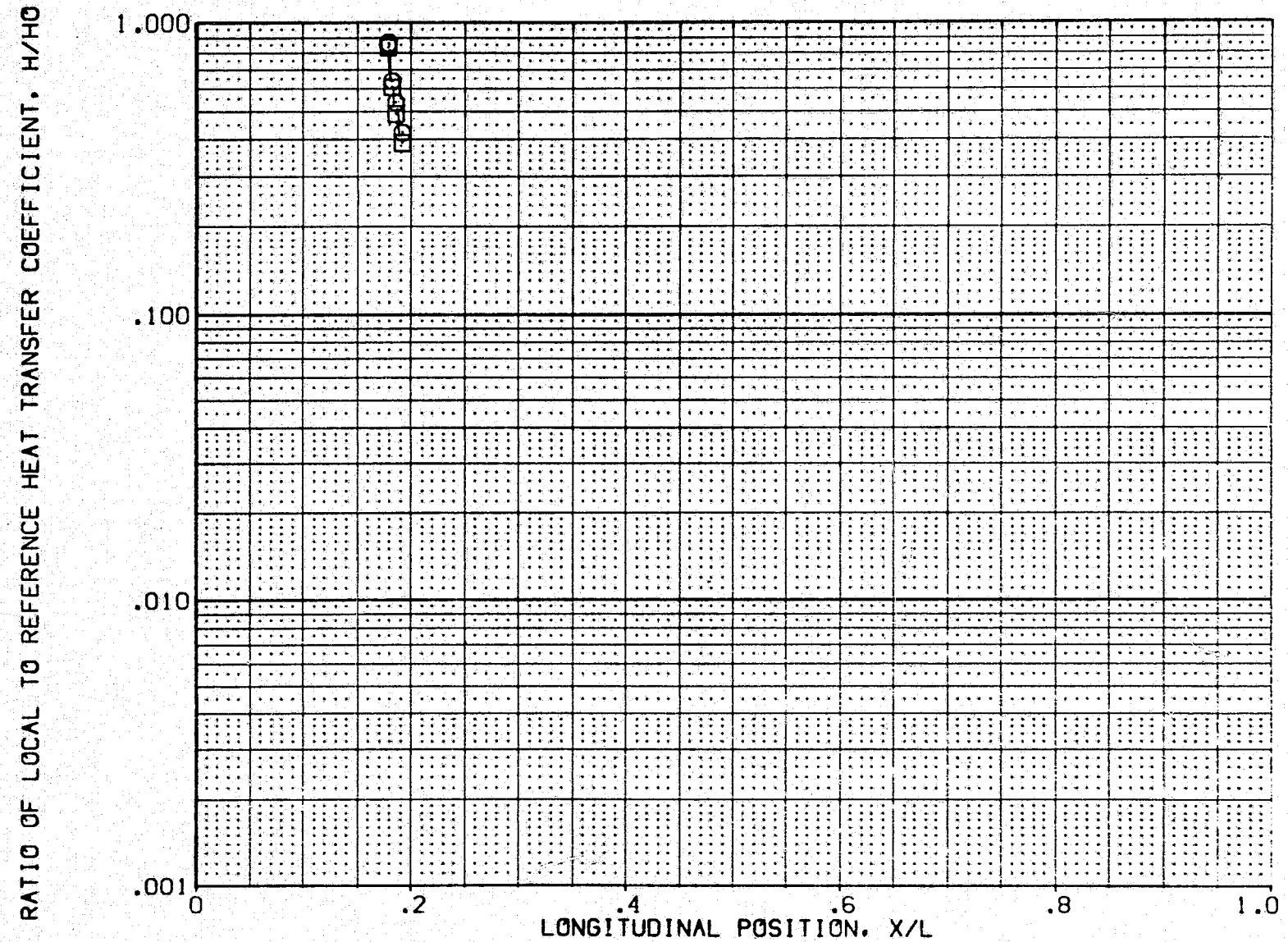


FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.365

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENM03)	○	ARC 3.5-185 IH20 01+T15+S8	ORB Z=8.295	-5.000	-5.000	5.300	5.000
(RENM02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB Z=8.295	-5.000	.000	5.300	5.000

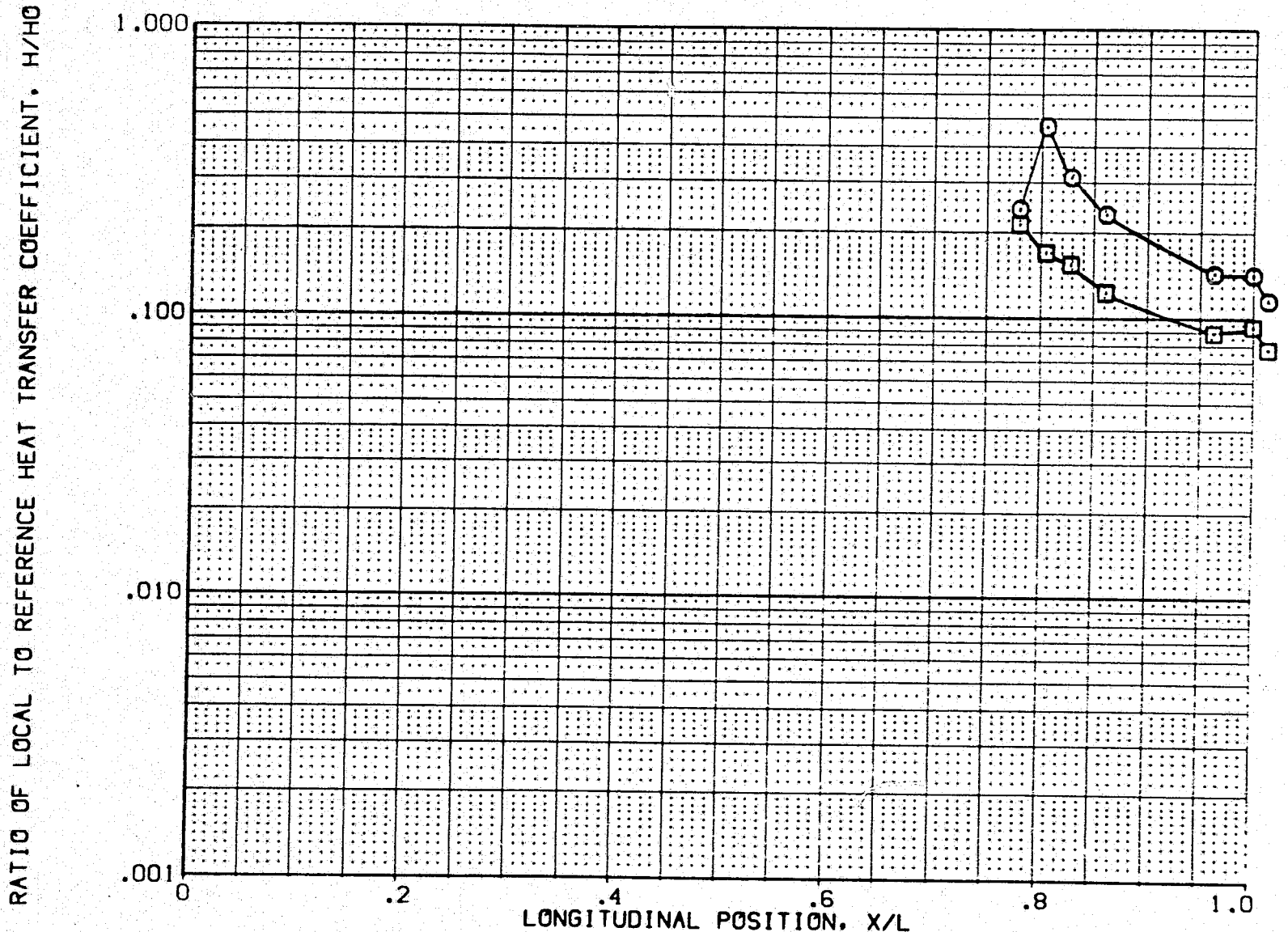


FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.295

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENJ03)	○	ARC 3.5-185 IH20 01+T15+S8	ORB Z=8.379	-5.000	-5.000	5.300	5.000
(RENJ02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB Z=8.379	-5.000	.000	5.300	5.000

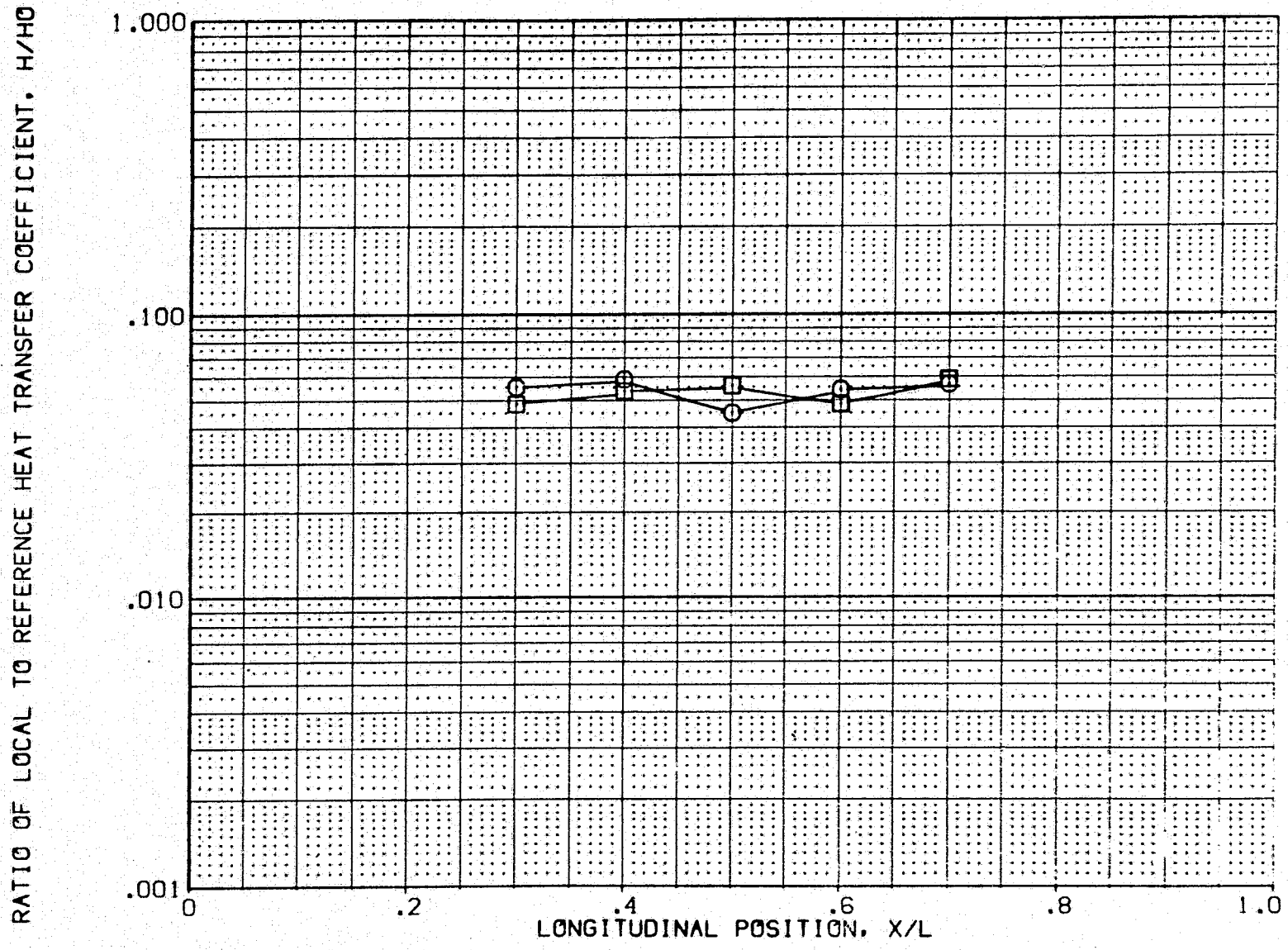


FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.379

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN003)	○	ARC 3.5-185 IH20 01+T15+S8	OMS TOP	-5.000	-5.000	5.300	5.000
(REN002)	□	ARC 3.5-185 IH20 01+T15+S8	OMS TOP	-5.000	.000	5.300	5.000

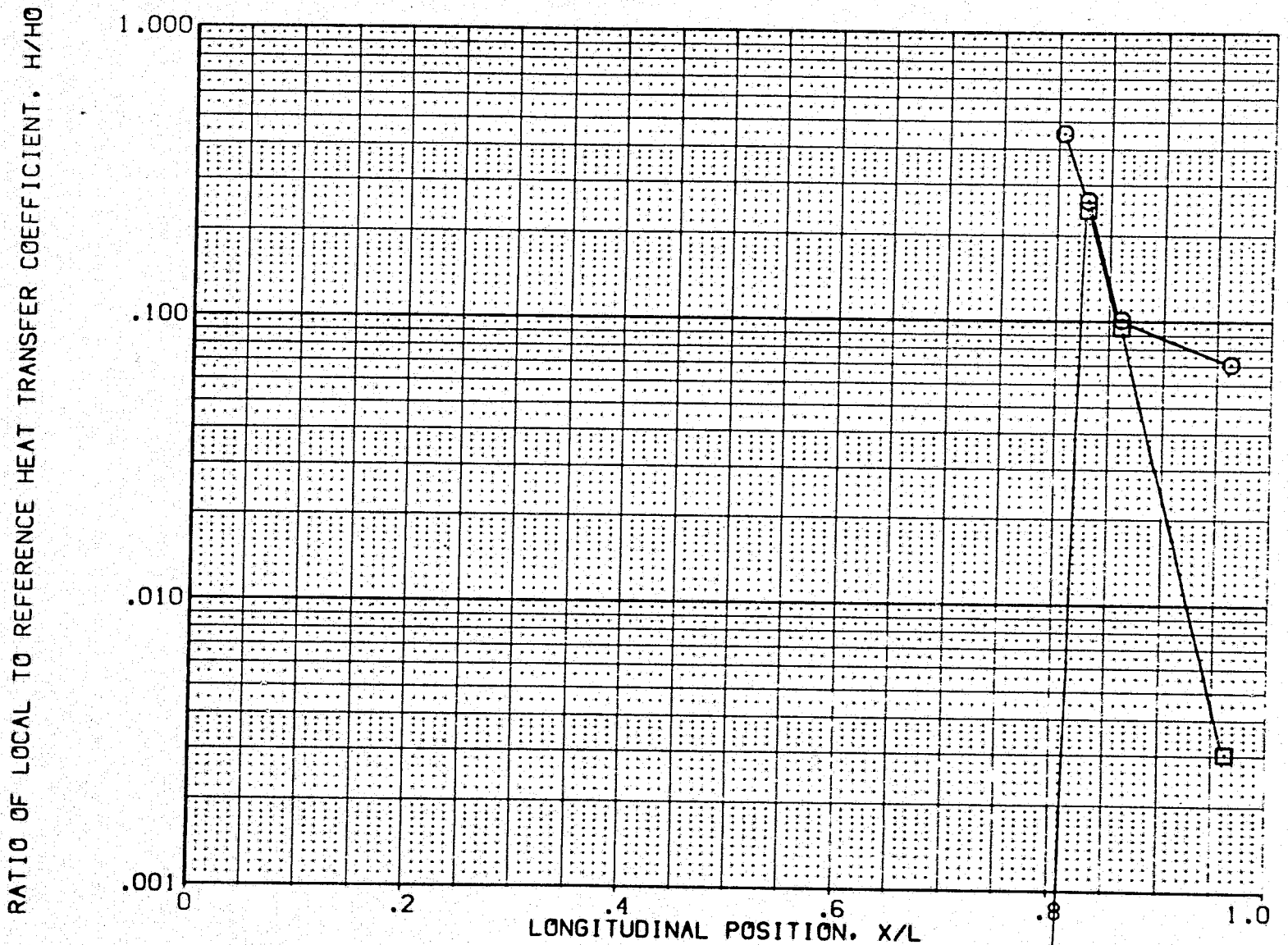


FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 Y = 1.662

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENK03) ⬭	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=180	-5.000	-5.000	5.300	5.000
(RENK02) □	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=180	-5.000	.000	5.300	5.000



FIG. 8 EFFECT OF BETA - BODY

MACH = 5.300 HAW/HT= .900 PHI = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW03)	○	ARC 3.5-185 IH20 OI+TIS+S8	WING BOTTOM SURF.	-5.000	-5.000	5.300	5.000
(RENW02)	□	ARC 3.5-185 IH20 OI+TIS+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

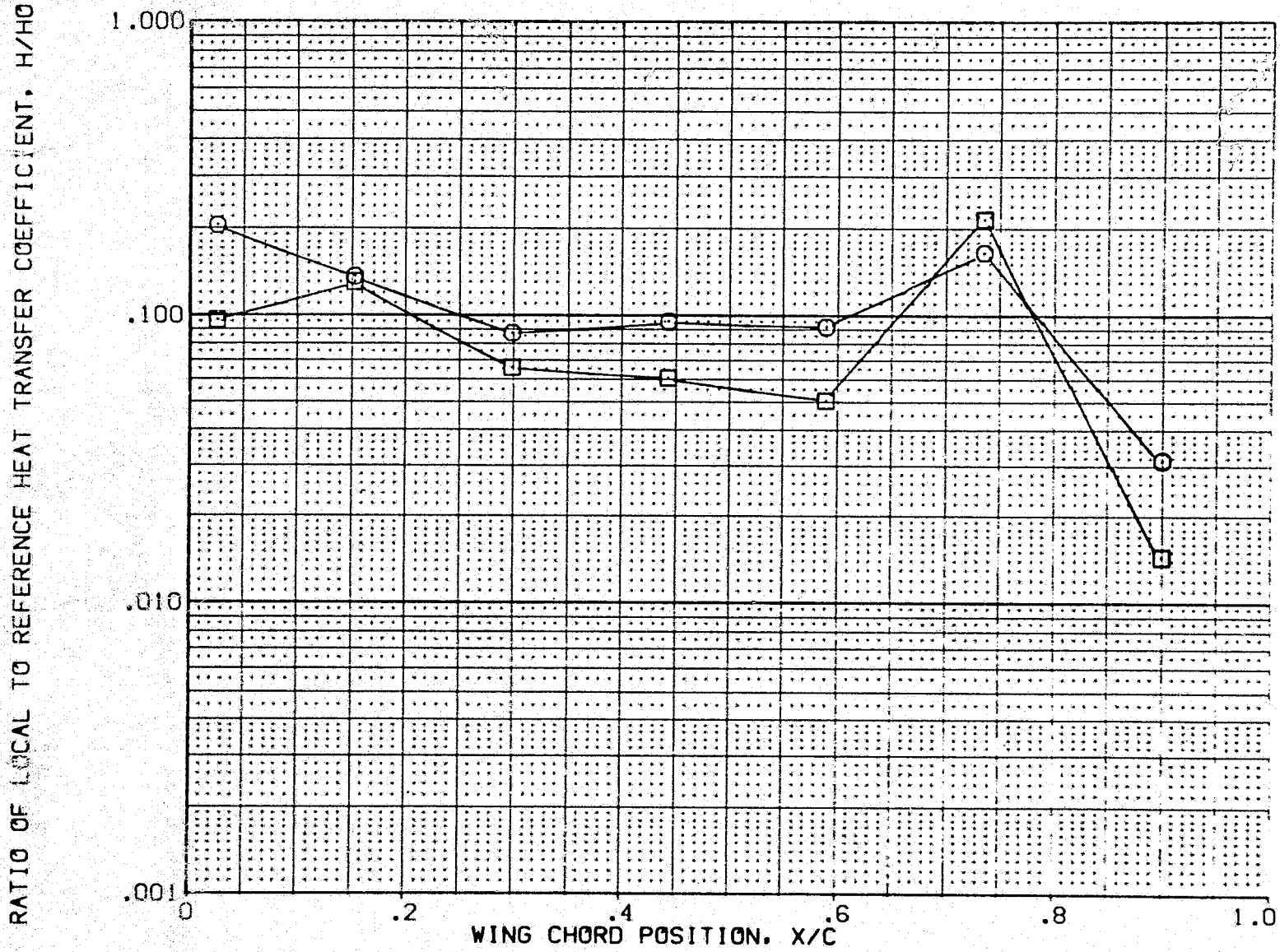


FIG. 9 EFFECT OF BETA - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .250

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV03)	○	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	-5.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

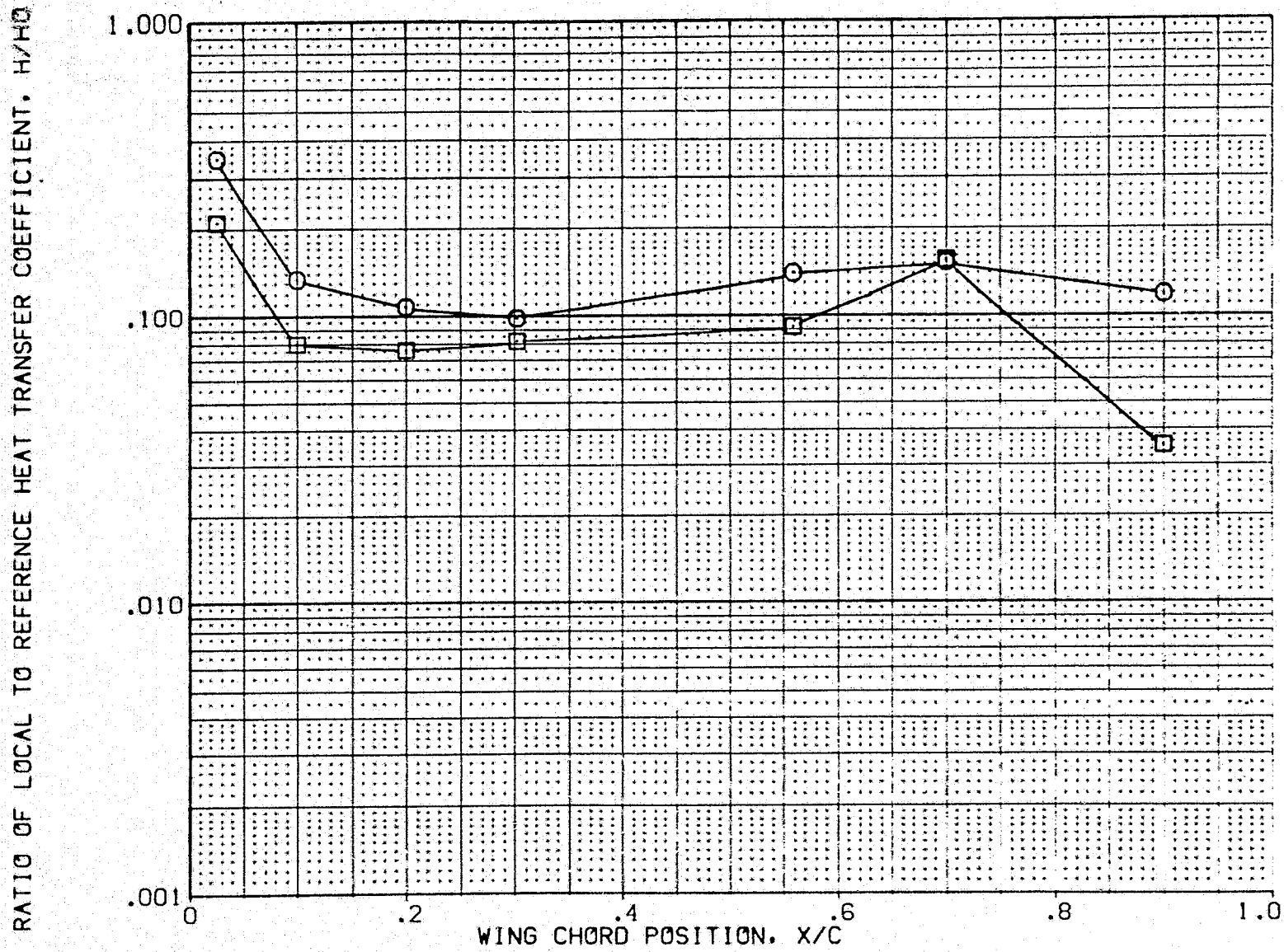


FIG. 9 EFFECT OF BETA - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV03)	○	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	-5.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

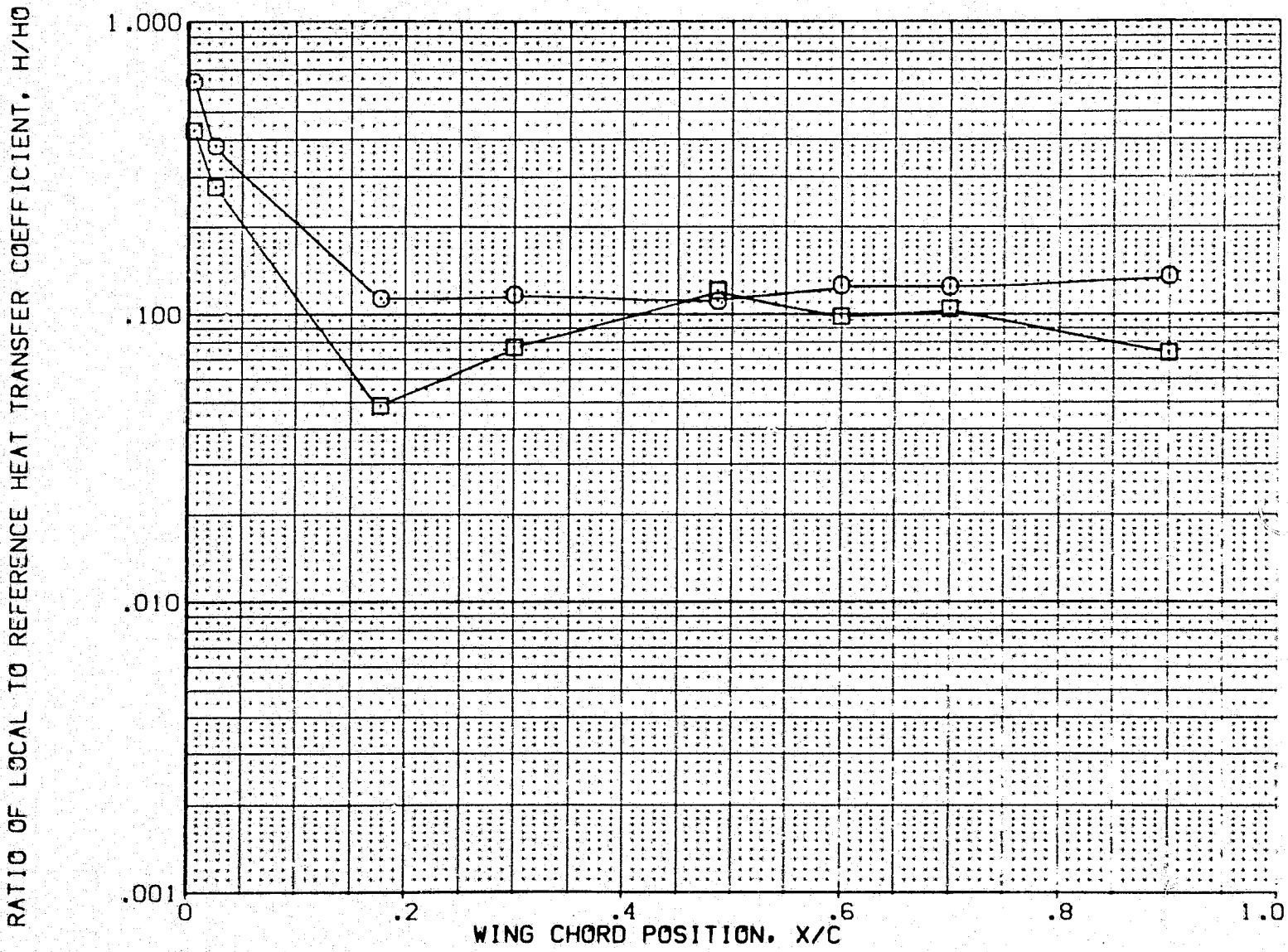


FIG. 9 EFFECT OF BETA - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW03)	○	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	-5.000	5.300	5.000
(RENW02)	□	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

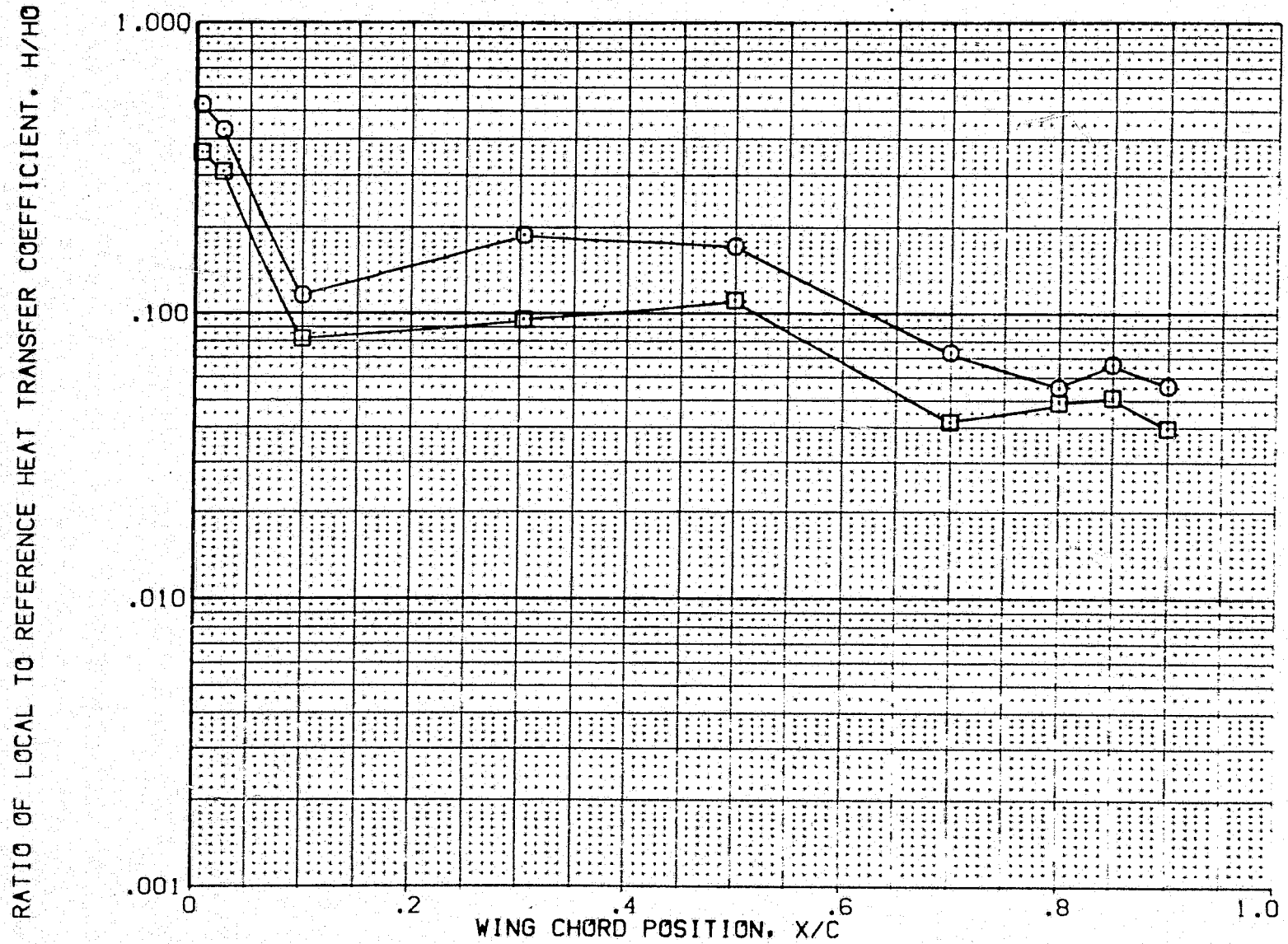


FIG. 9 EFFECT OF BETA - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .750

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW03)	○	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	-5.000	5.300	5.000
(RENW02)	□	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

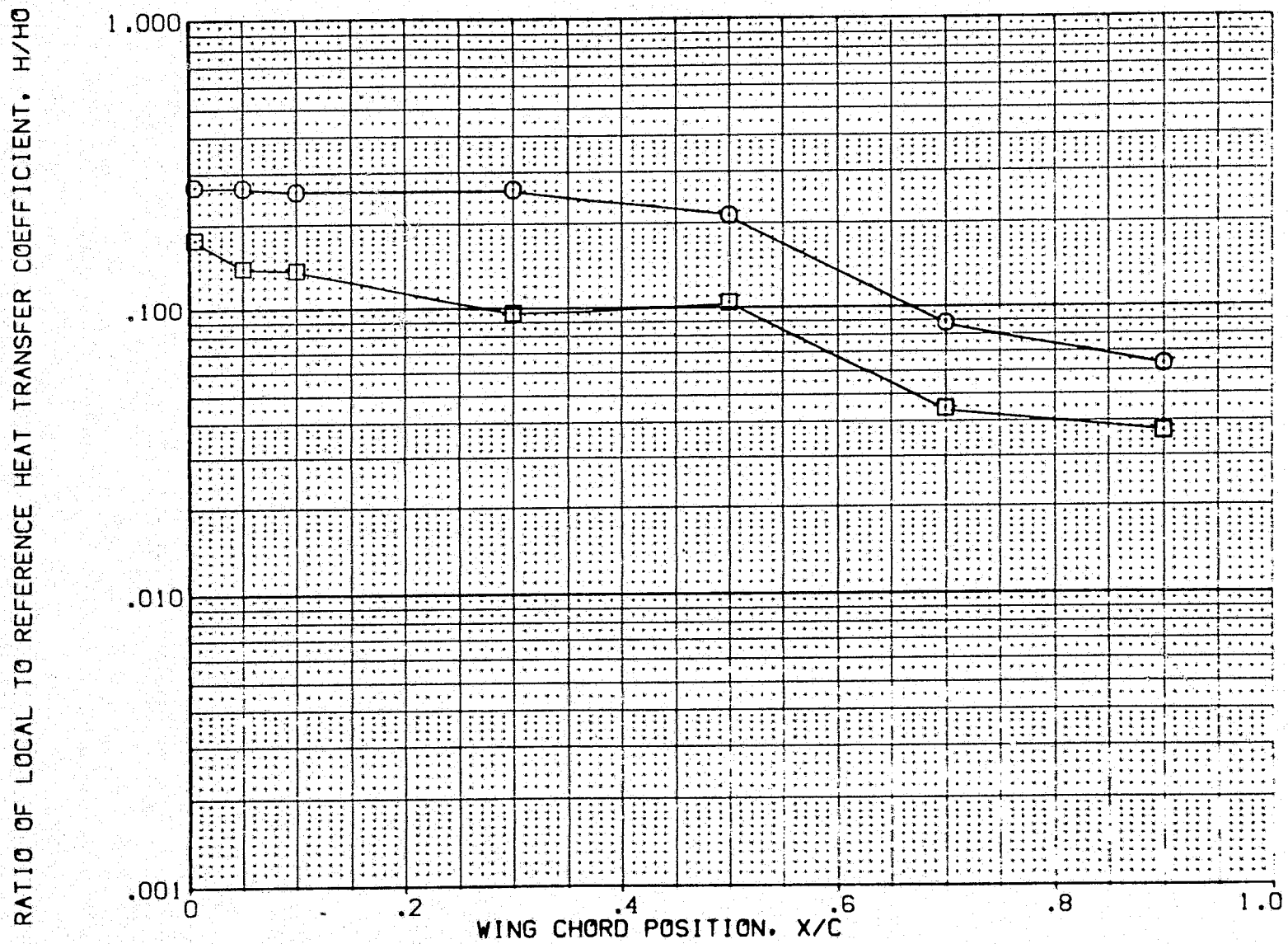


FIG. 9 EFFECT OF BETA - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .950

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX03)	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	-5.000	5.300	5.000
(RENX02)	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000

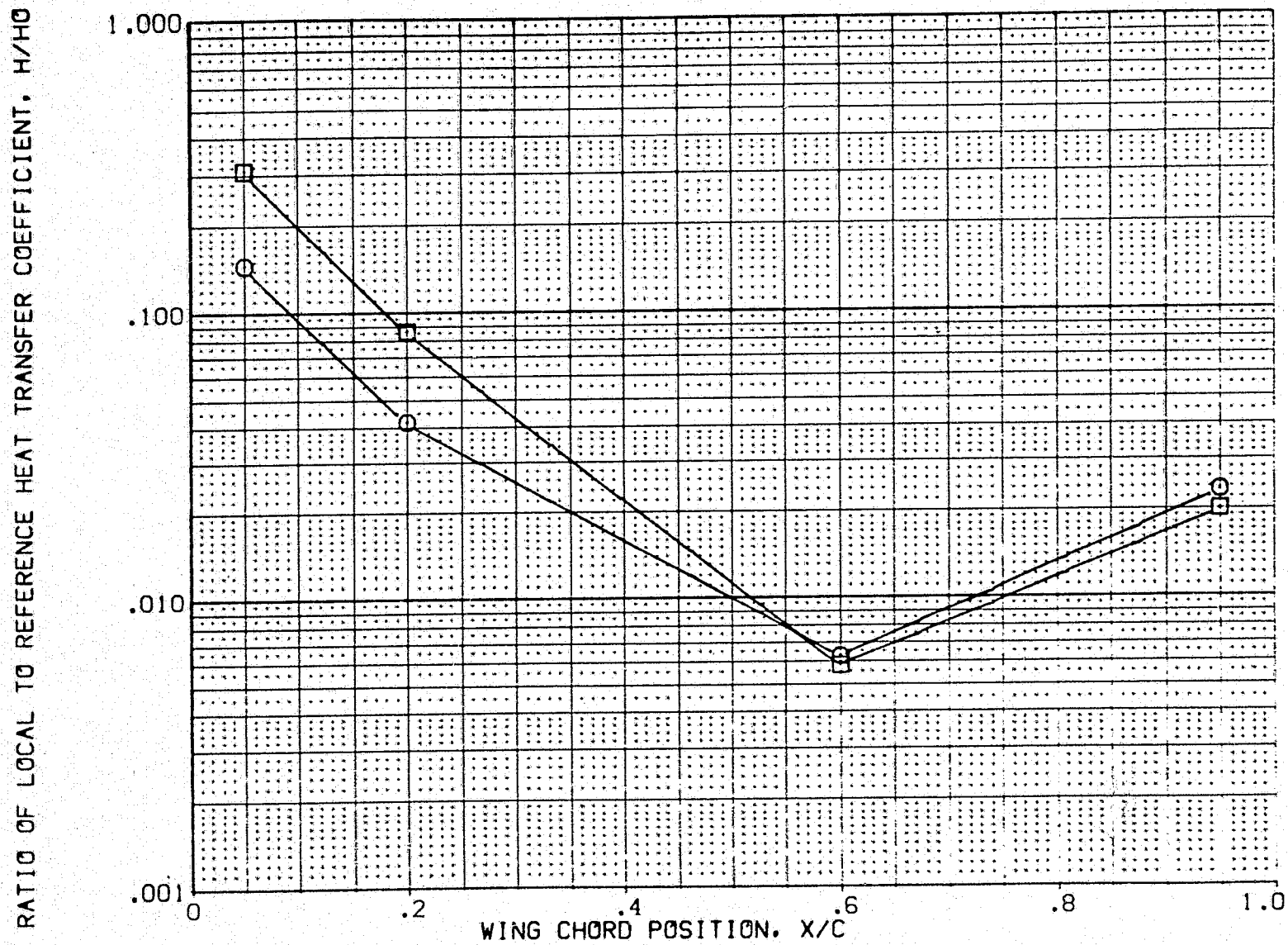


FIG. 9 EFFECT OF BETA - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX03)	○	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	-5.000	5.300	5.000
(RENX02)	□	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000

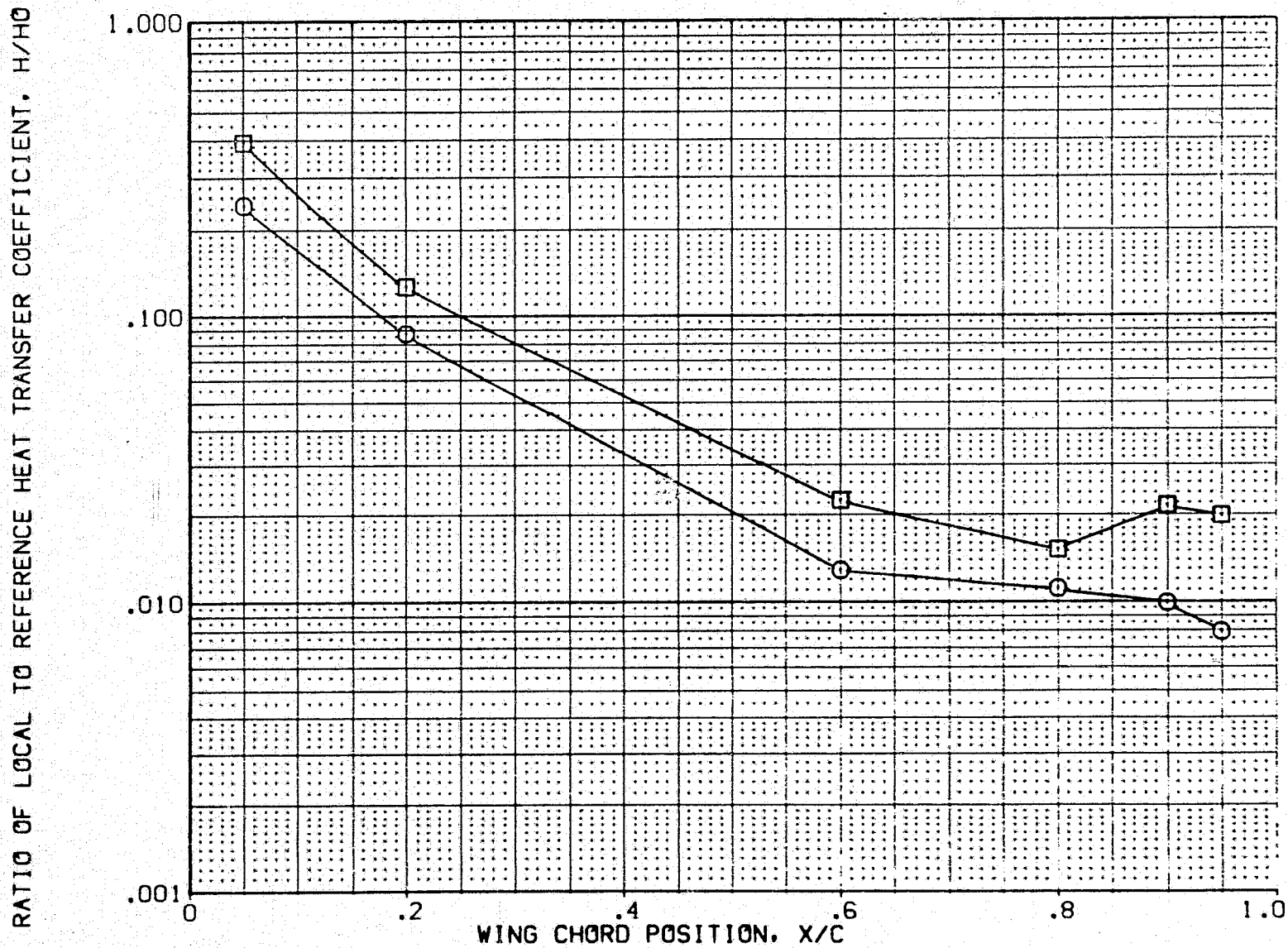


FIG. 9 EFFECT OF BETA - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .600

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX03)	○	ARC 3.5-185 1H20 01+T15+S8	WING UPPER SURF.	-5.000	-5.000	5.300	5.000
(RENX02)	□	ARC 3.5-185 1H20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000

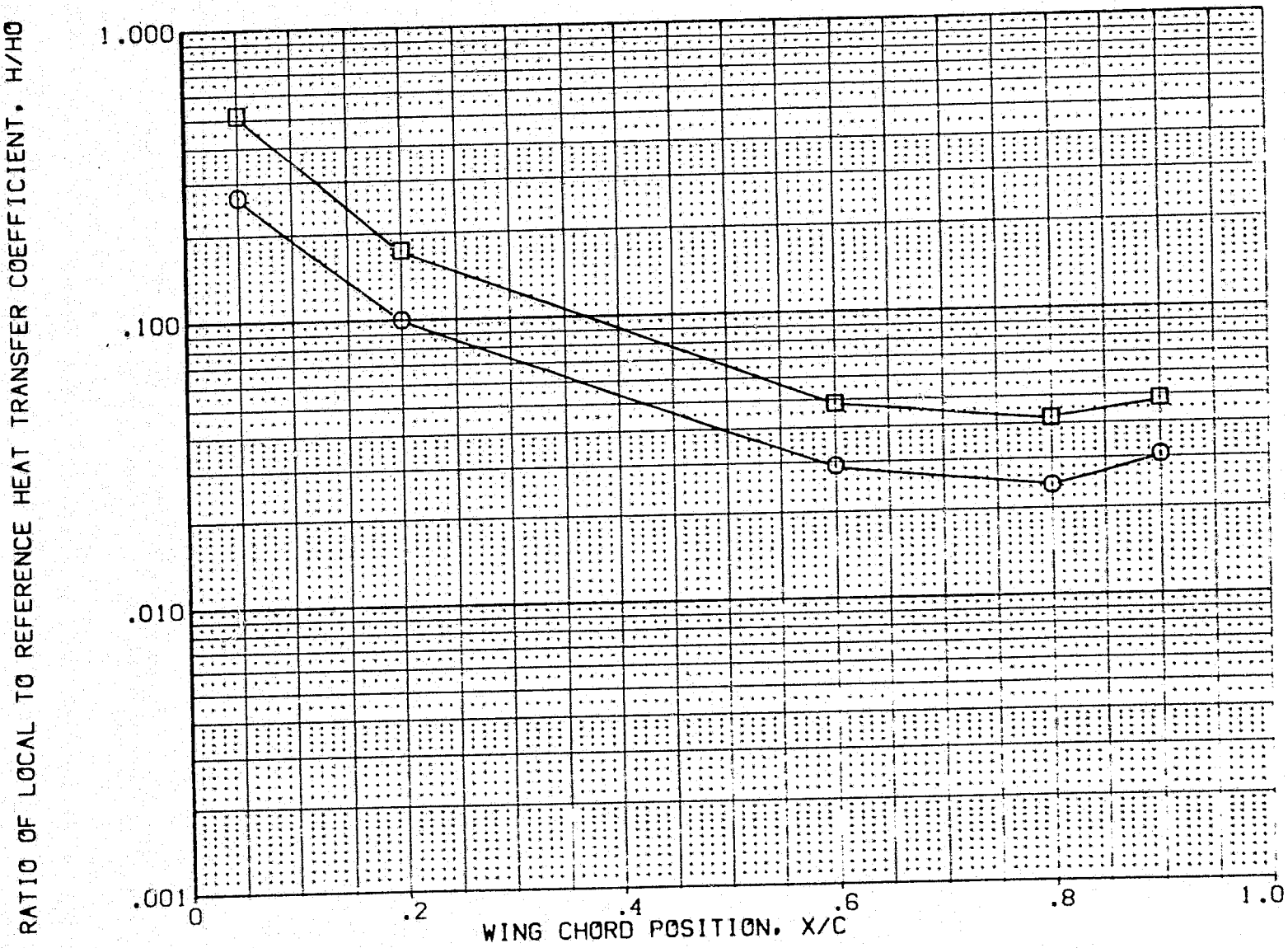


FIG. 9 EFFECT OF BETA - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .800

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV03)	○	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	-5.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

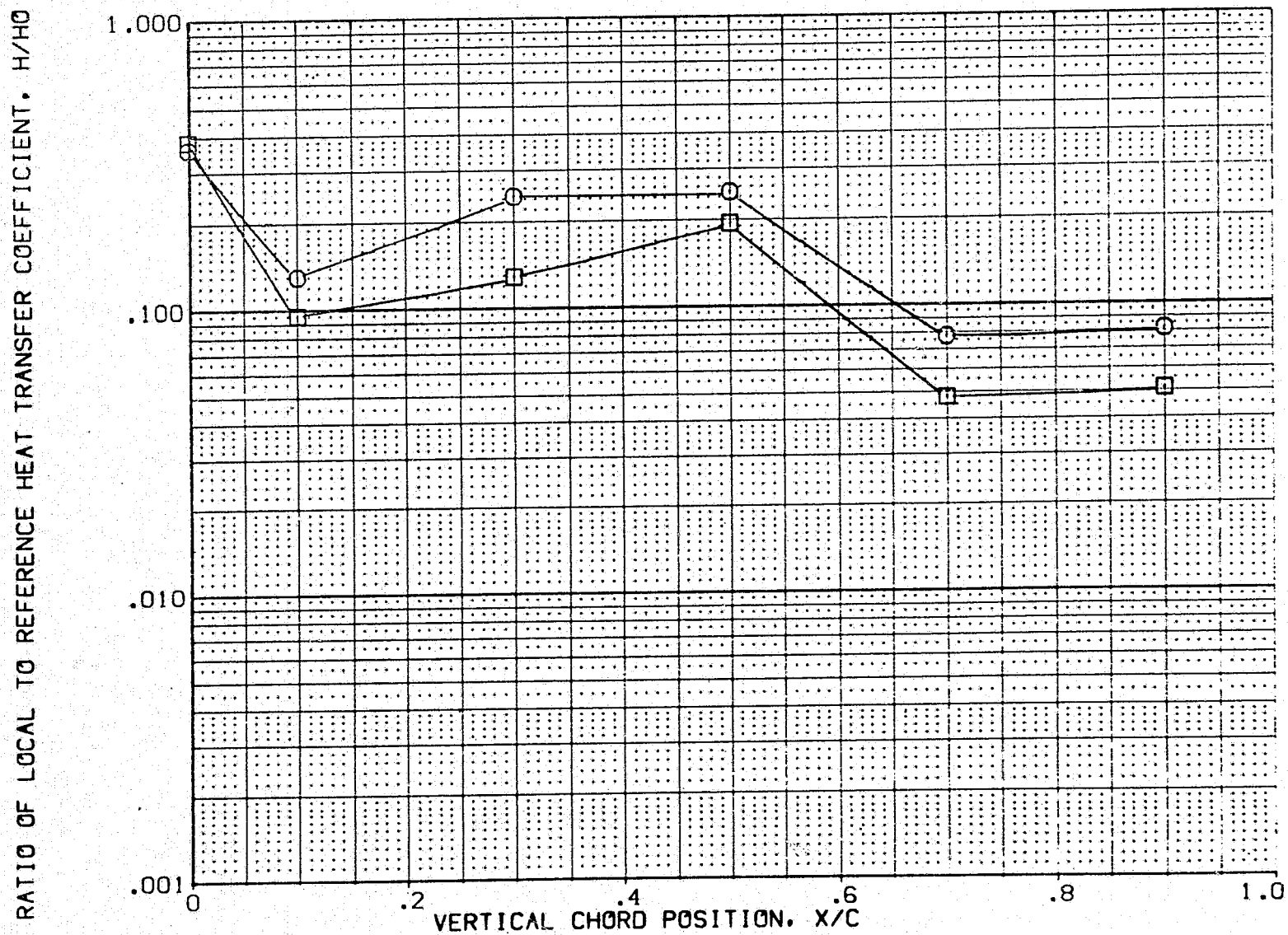


FIG.10 EFFECT OF BETA - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .299

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV03) ○	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	-5.000	5.300	5.000
(RENV02) □	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

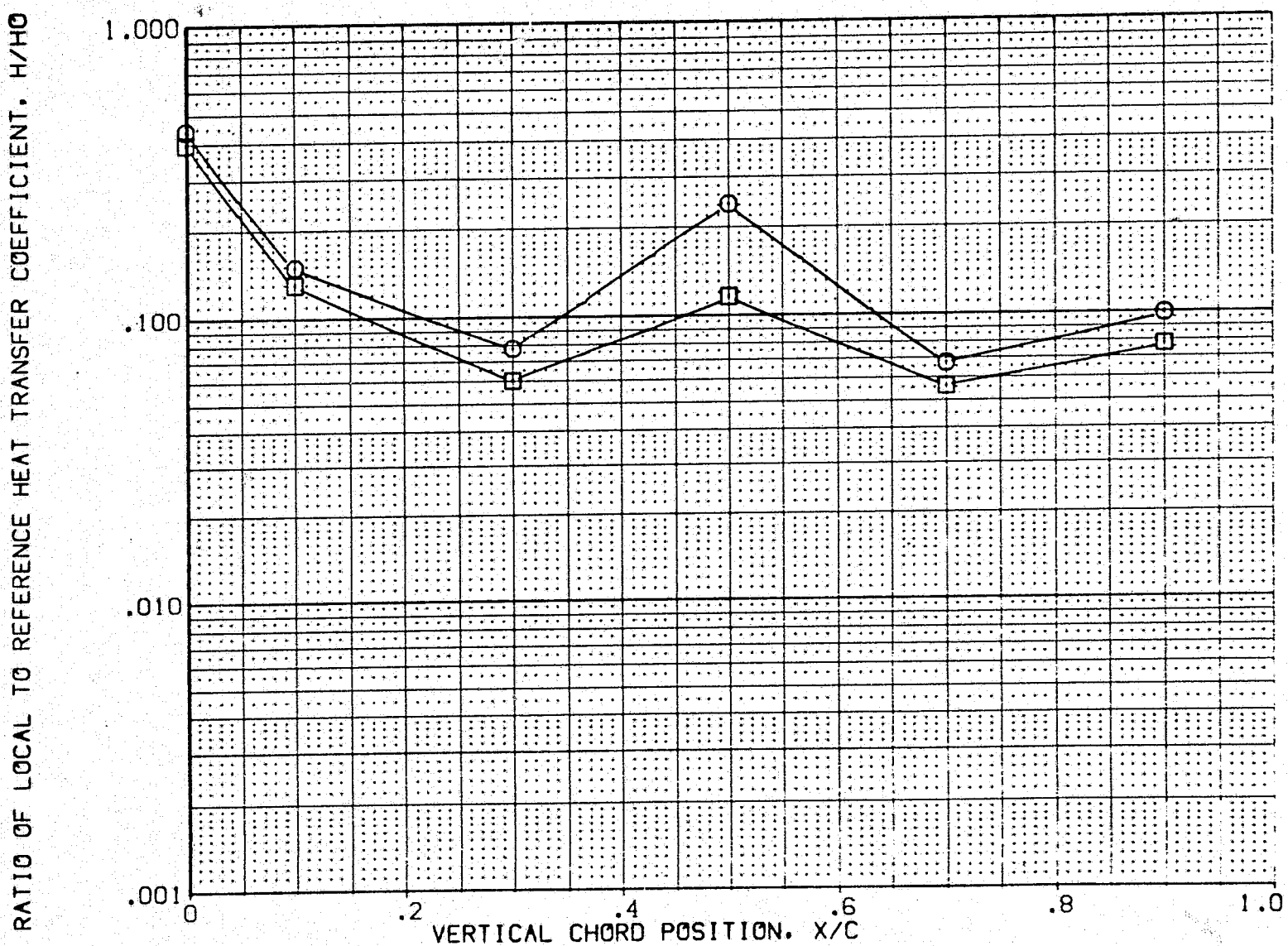


FIG.10 EFFECT OF BETA - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .532

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV03)	○	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	-5.000	5.300	.5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

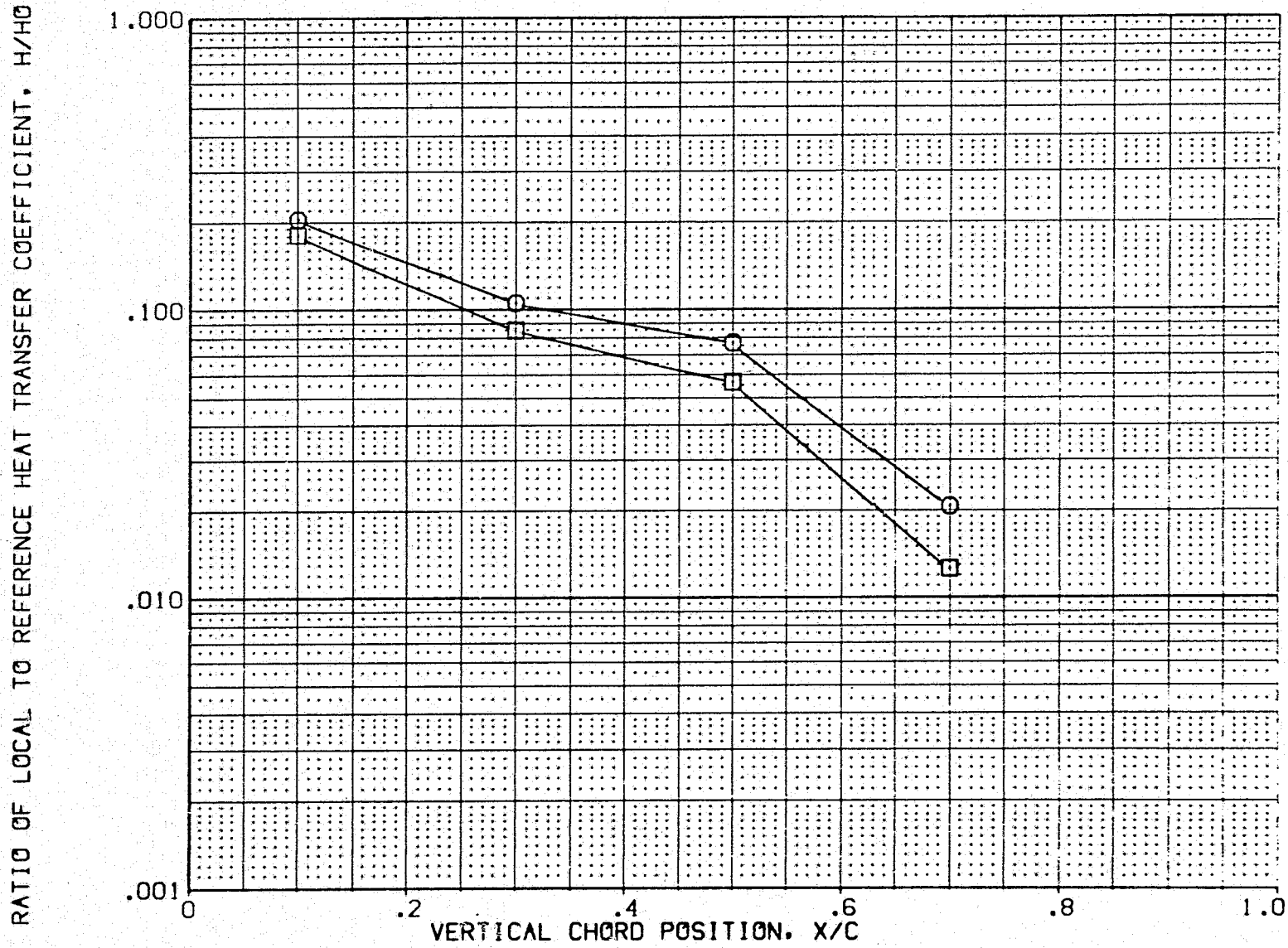


FIG.10 EFFECT OF BETA - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .765

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV03)	○	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	-5.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

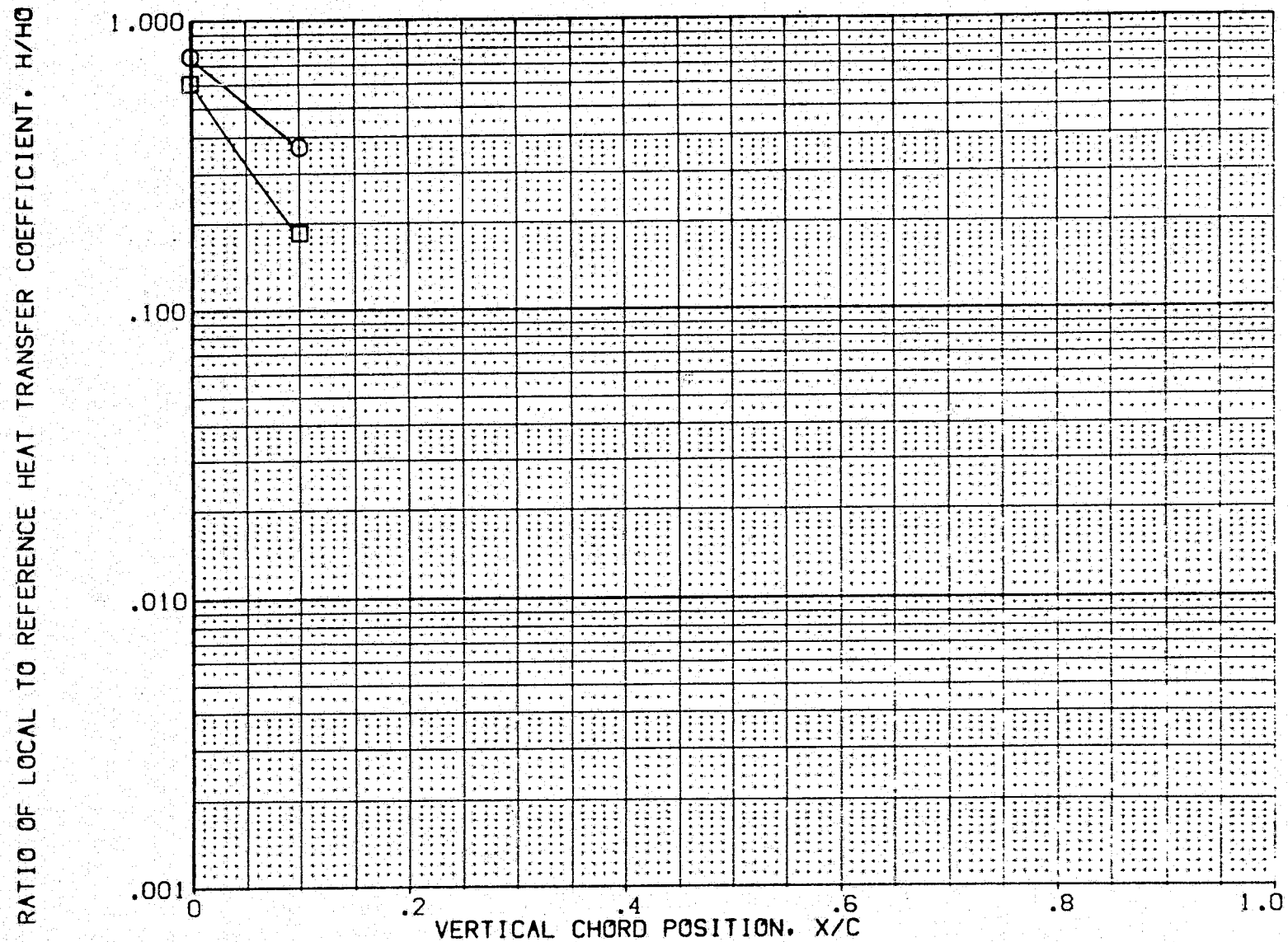


FIG.10 EFFECT OF BETA - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .905

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV03)	○	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	-5.000	5.300	5.000
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

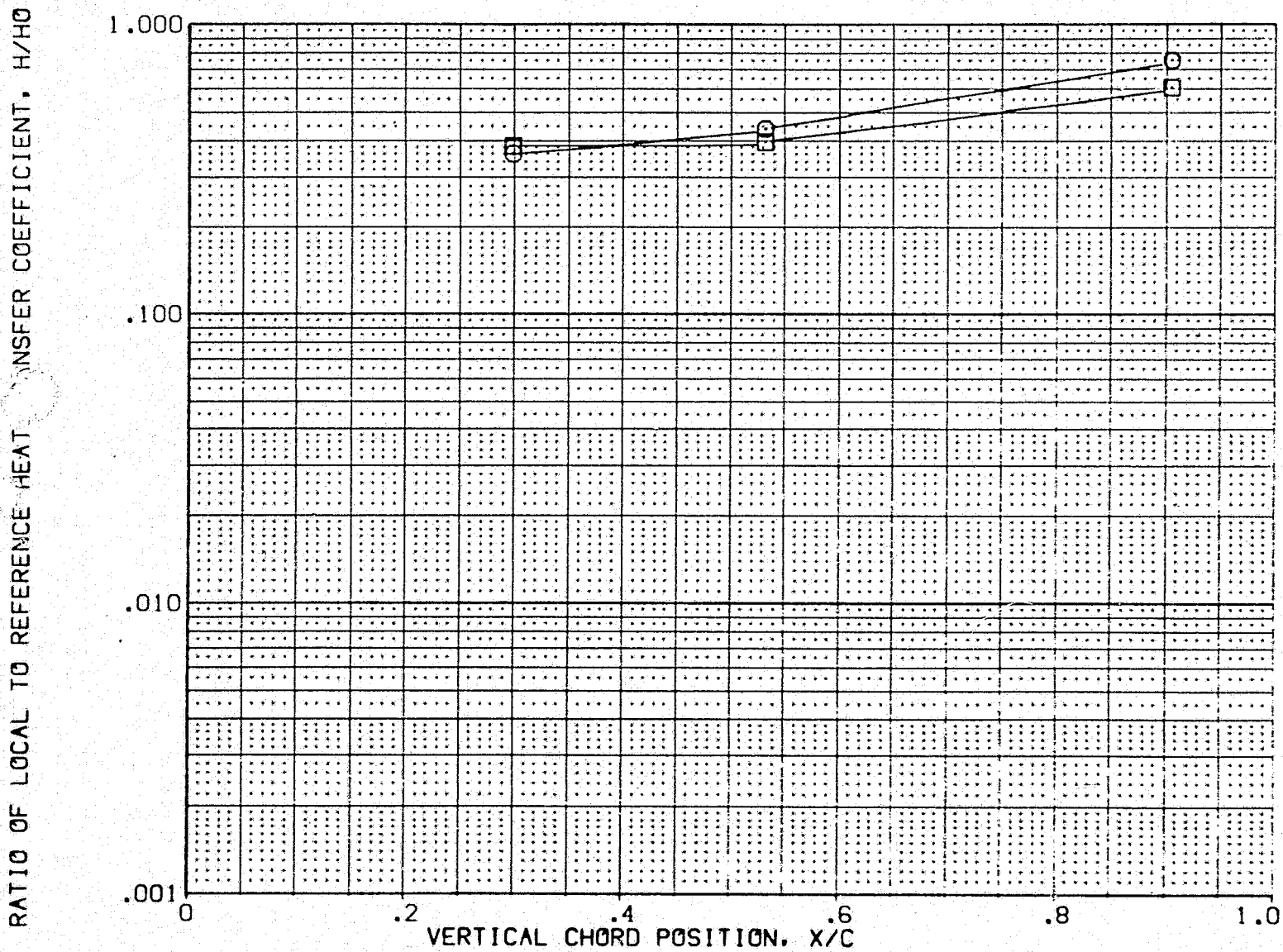


FIG.10 EFFECT OF BETA - VERTICAL

MACH = 5.300 HAW/HT= .900 X/C = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT01) ○	ARC 3.5-185 1H20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT02) □	ARC 3.5-185 1H20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

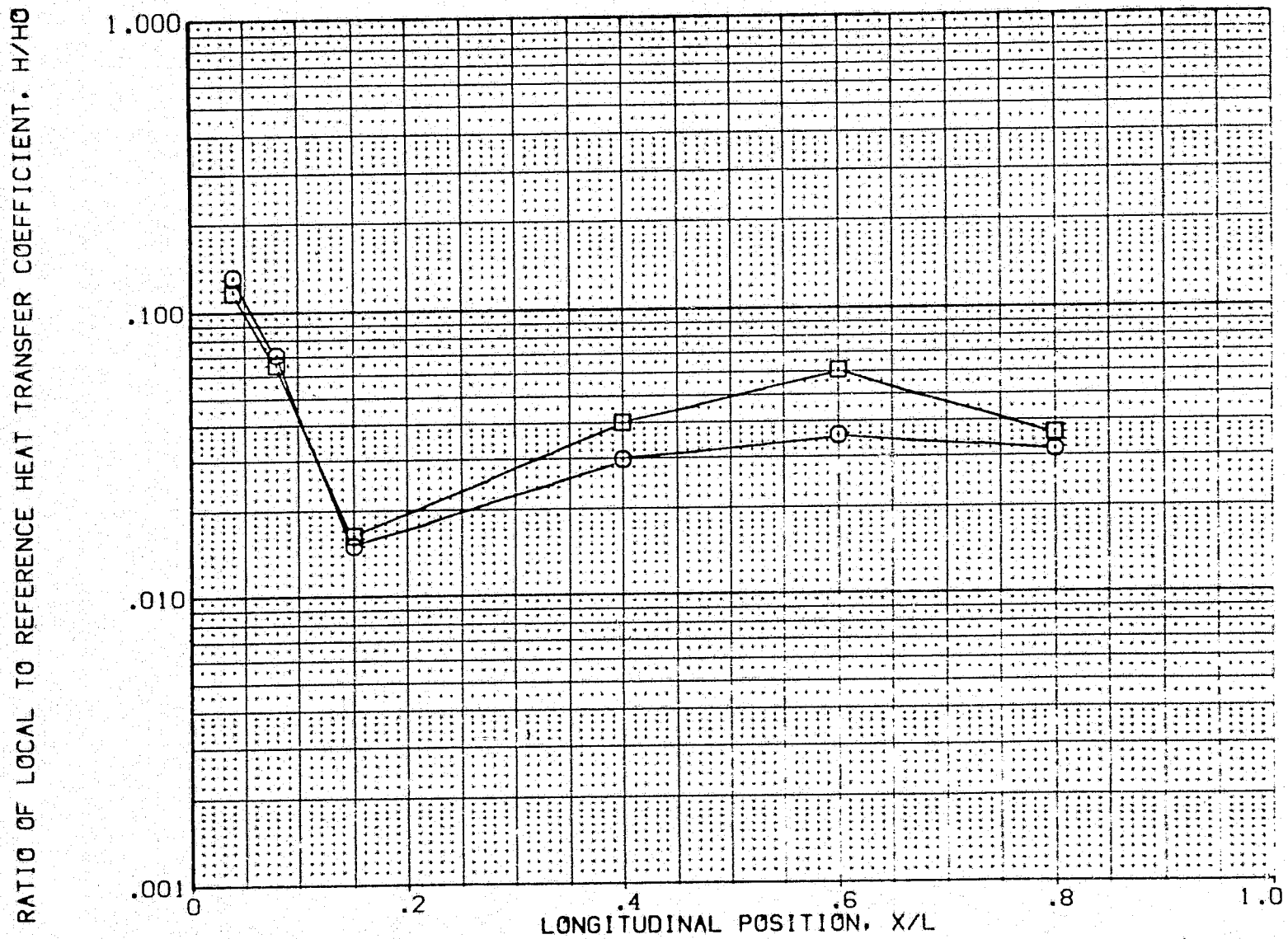


FIG.11 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT01) ○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT02) □	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

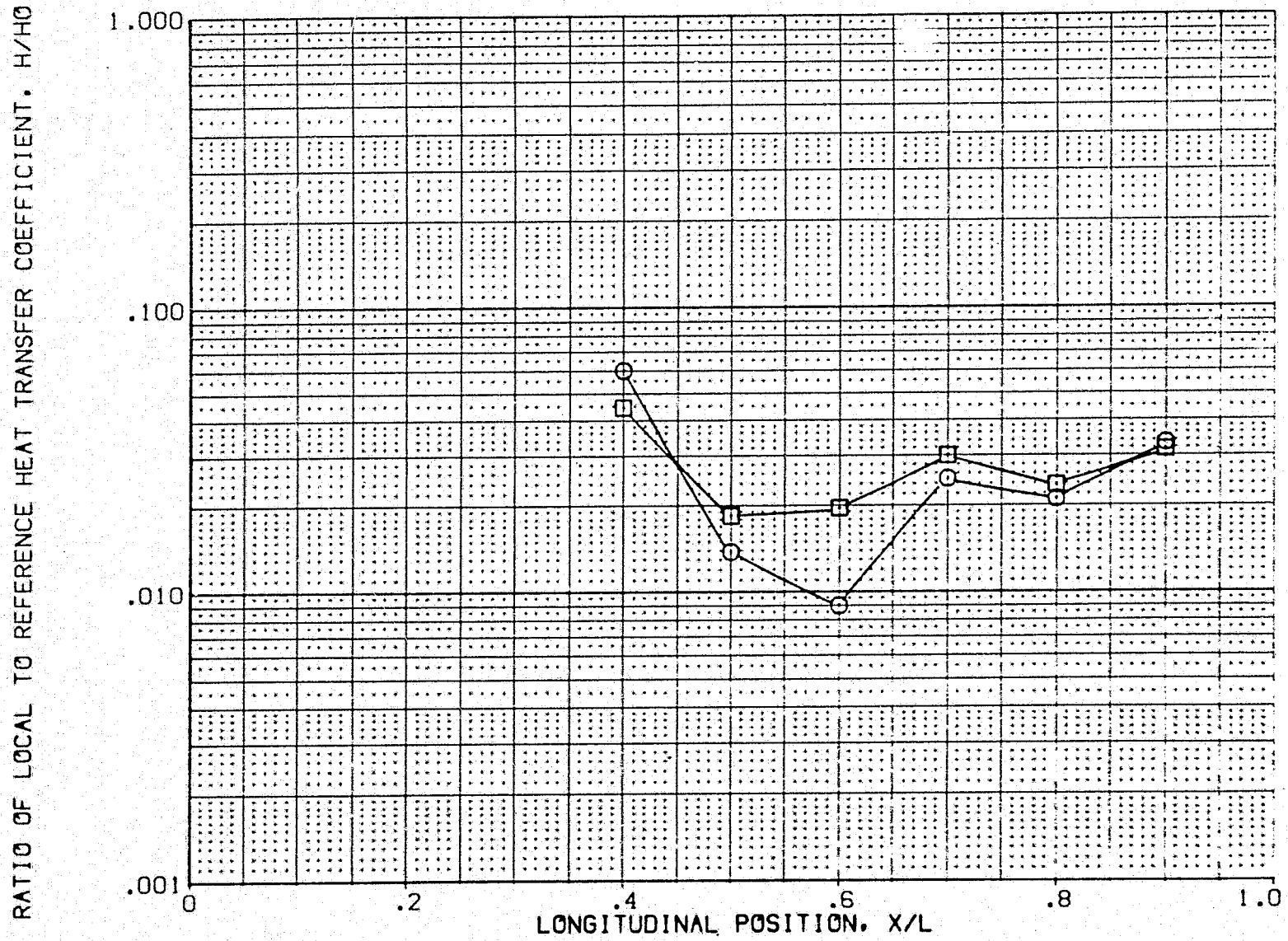


FIG.11 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 45.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN101) ○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	1.500
(REN102) □	ARC 3.5-185 IH20 01+T15+S9	EXTERNAL TANK	-5.000	.000	5.300	5.000

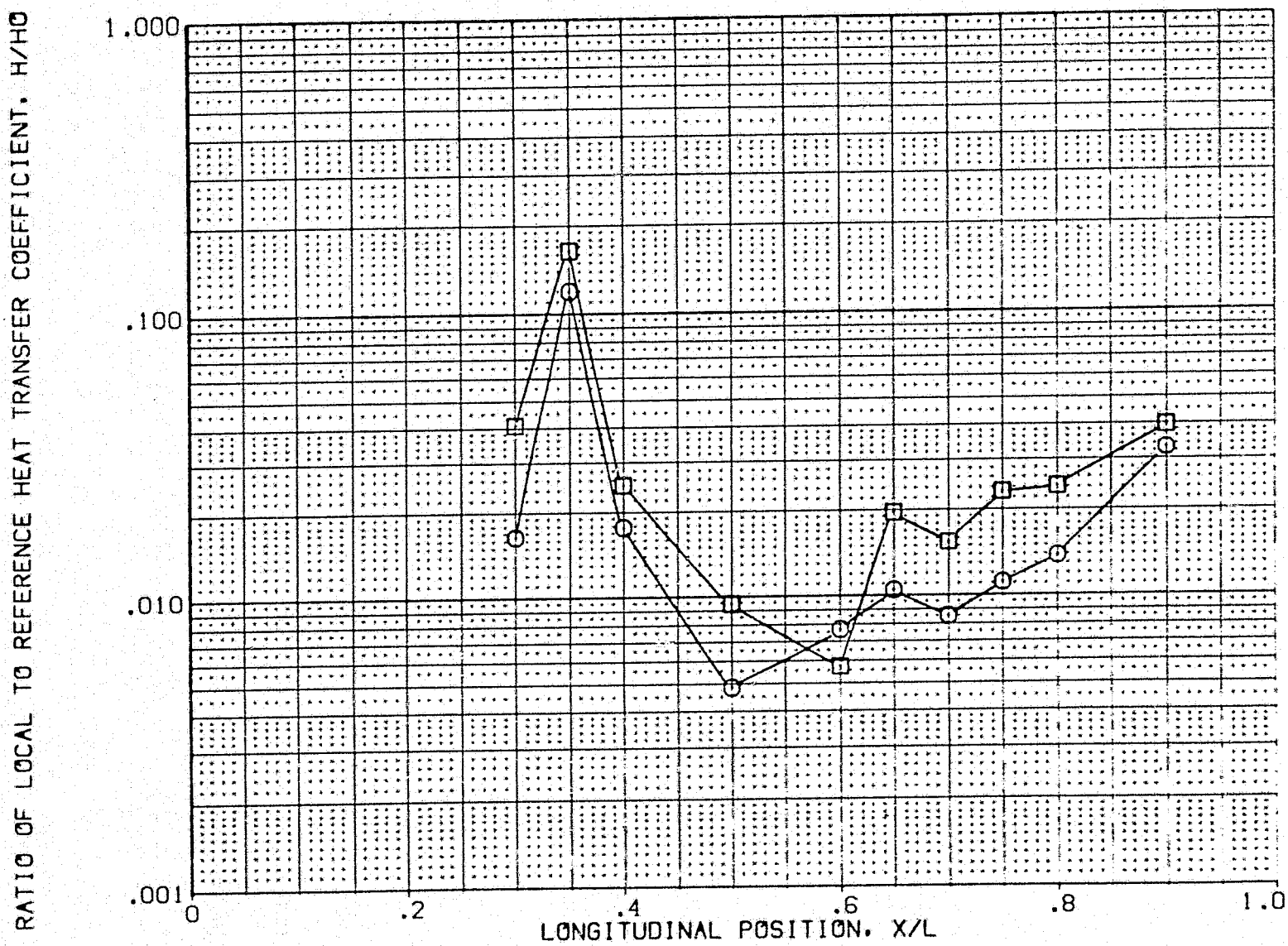


FIG.11 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 67.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT01)	○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

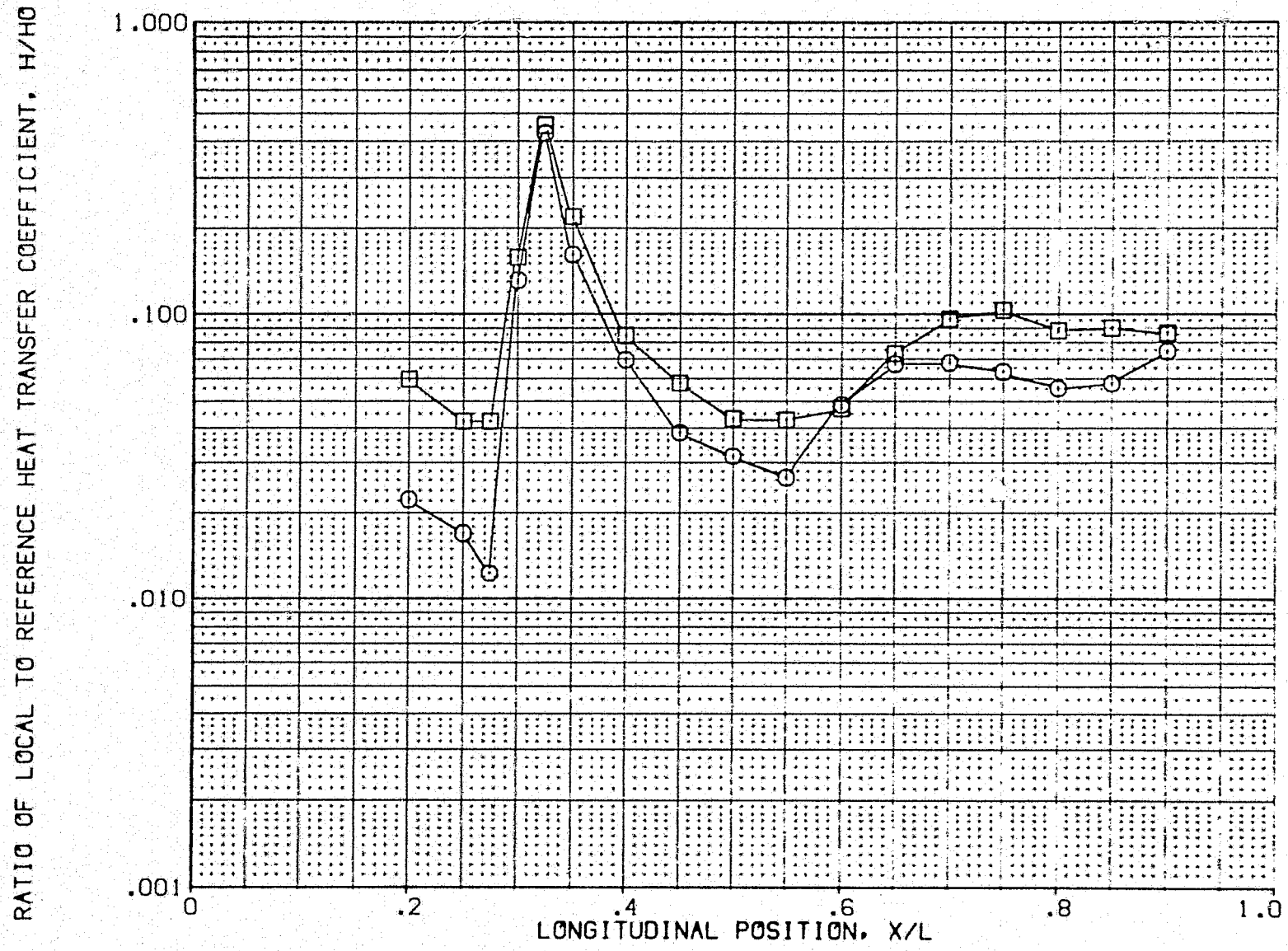


FIG.11 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 90.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT01)	○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT02)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

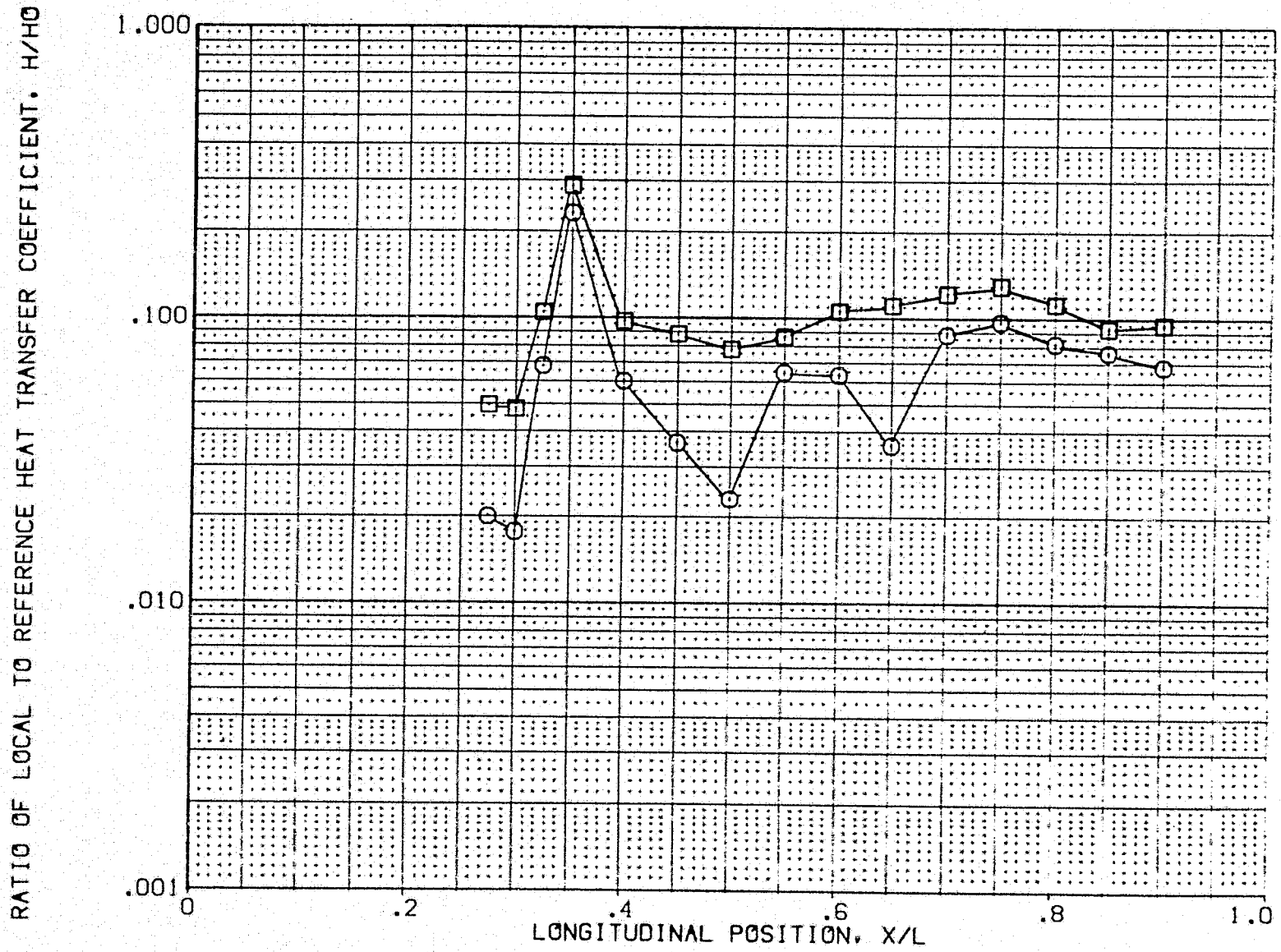


FIG.11 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 112.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT01) ○	ARC 3.5-185 1H20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT02) □	ARC 3.5-185 1H20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

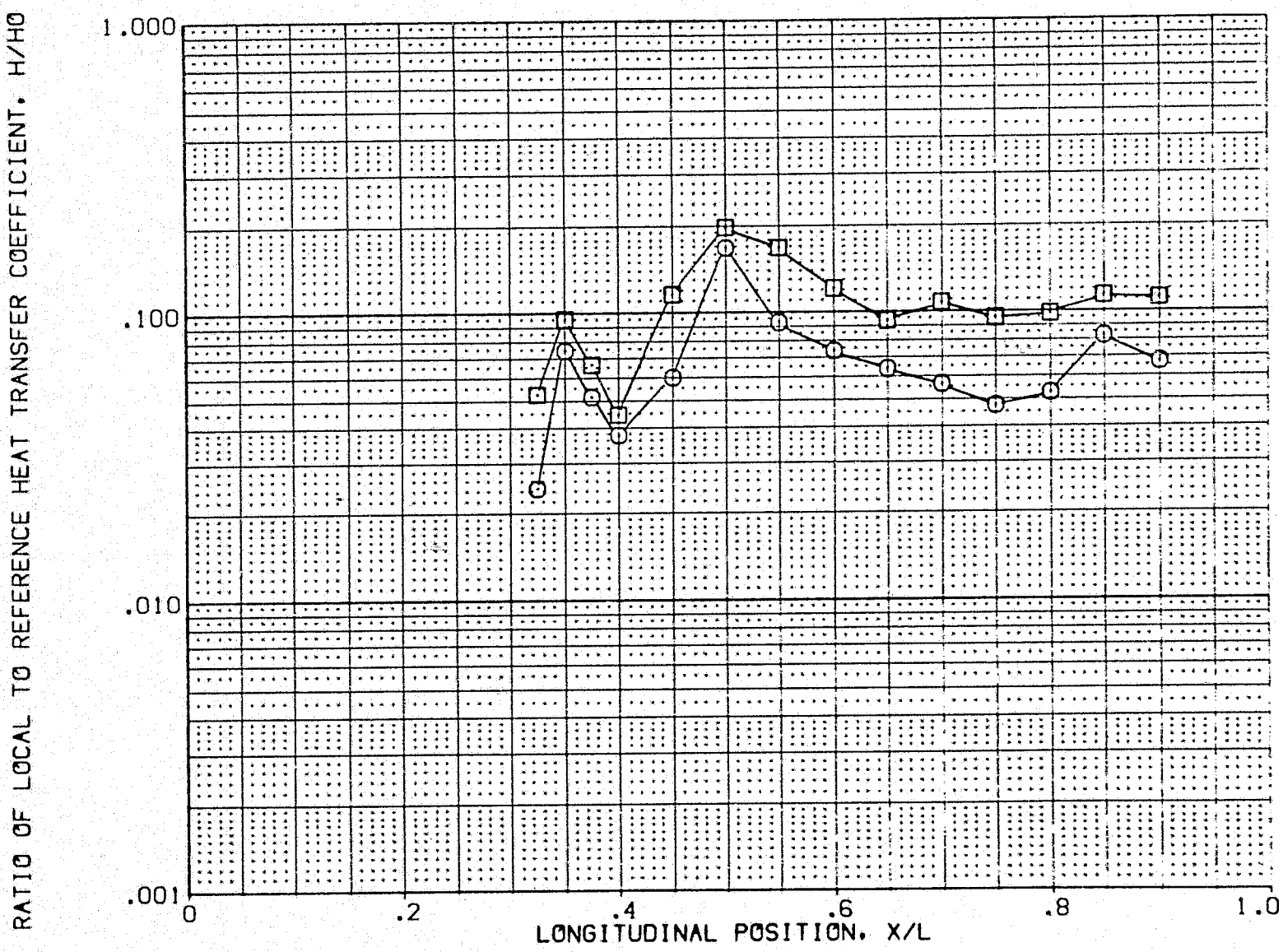


FIG.11 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 135.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN101)	○	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	1.500
(REN102)	□	ARC 3.5-185 IH20 01+T15+S8	EXTERNAL TANK	-5.000	.000	5.300	5.000

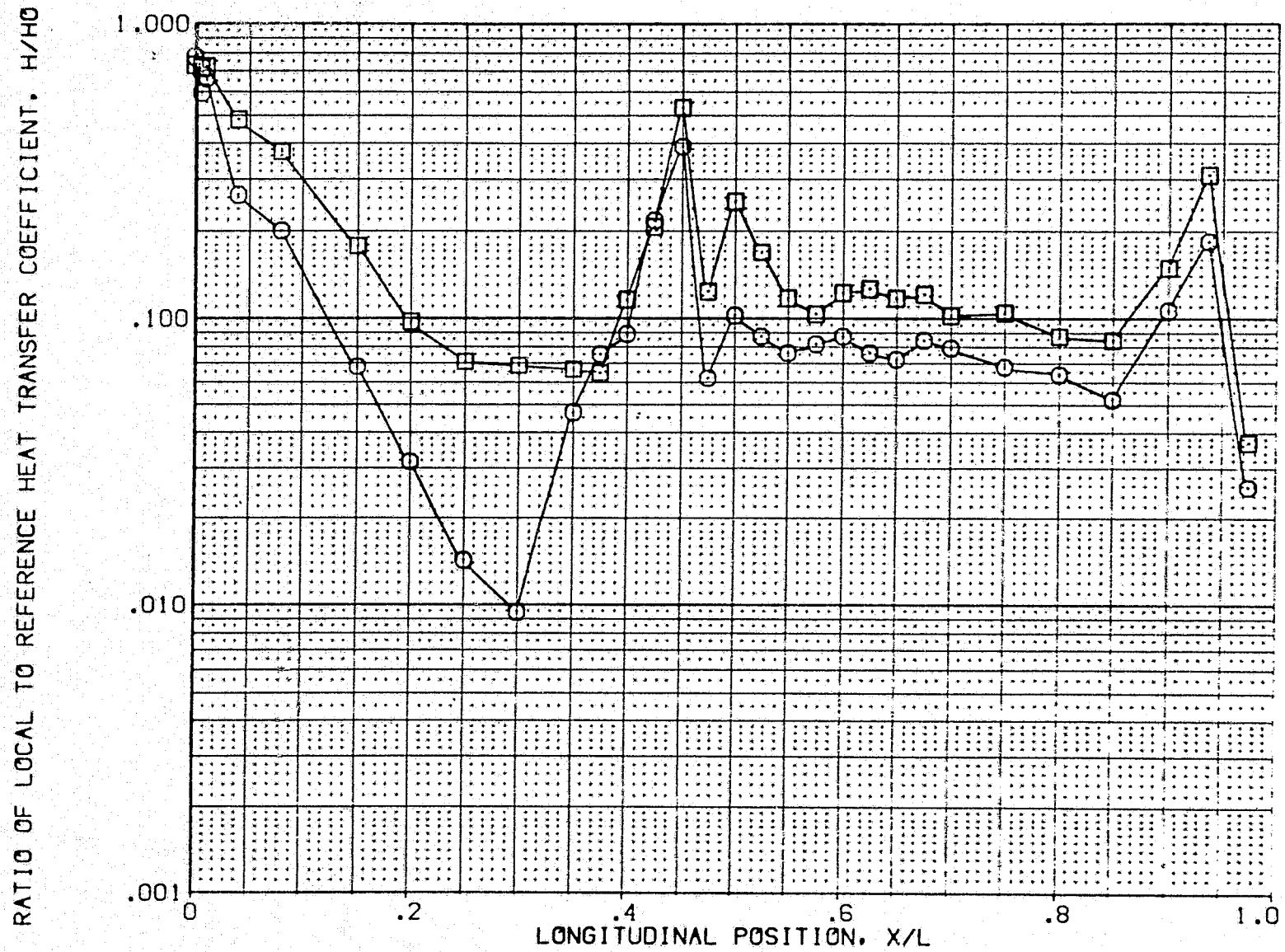


FIG.11 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENSO1) ○	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENSO2) □	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

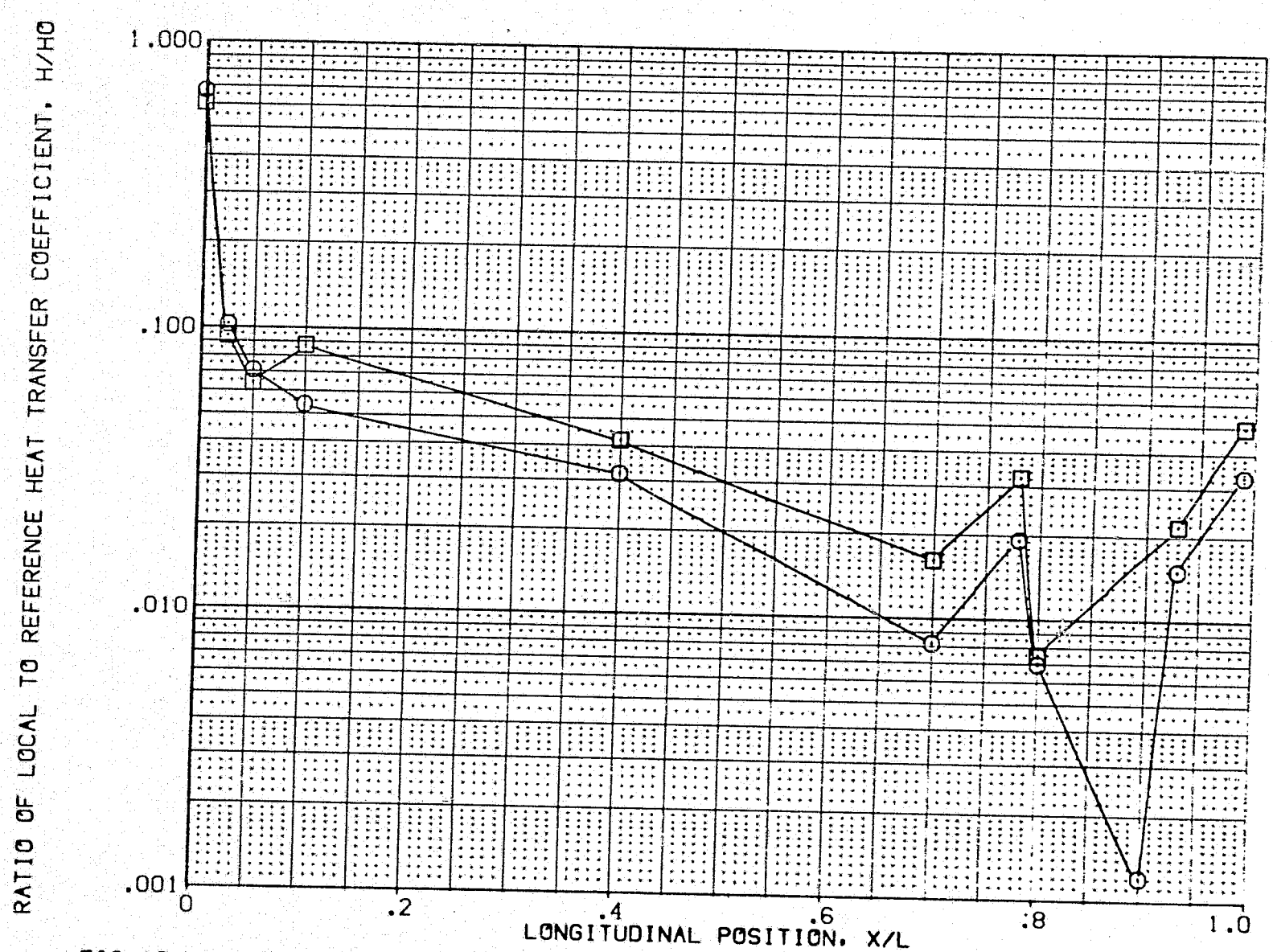


FIG.12 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 90.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENSO1)	○	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENSO2)	□	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

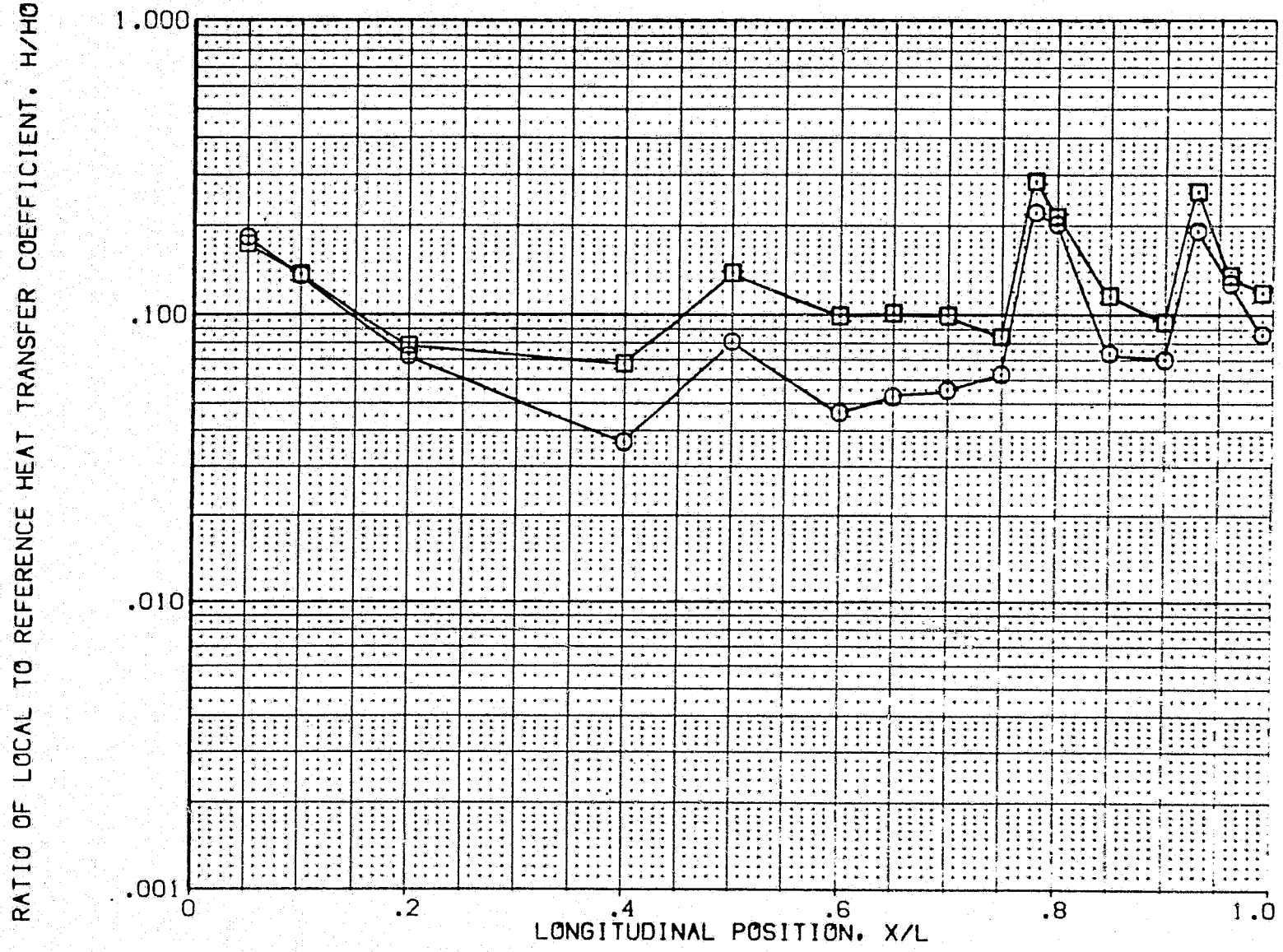


FIG.12 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS01)	○	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS02)	□	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

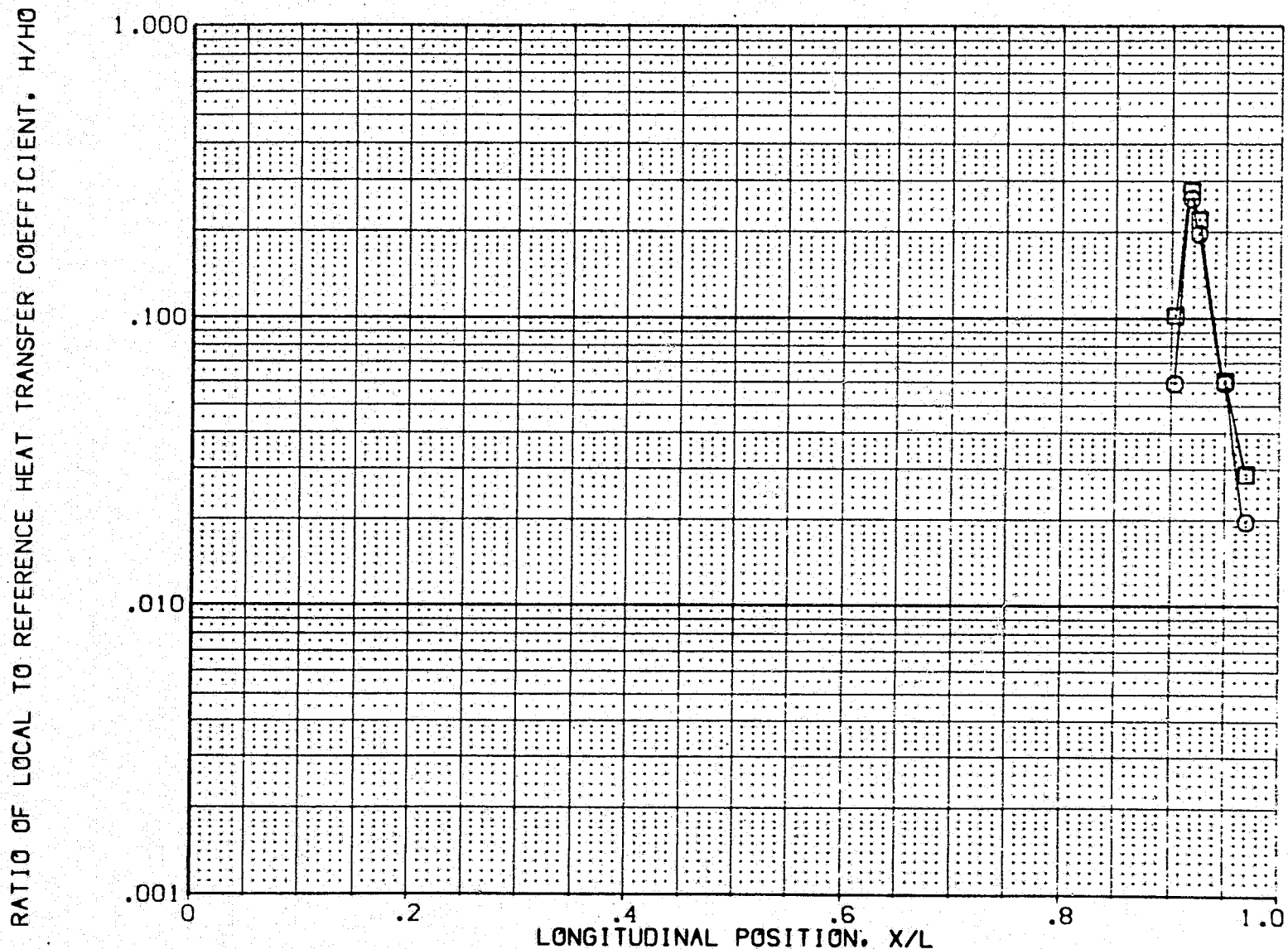


FIG.12 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 210.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENSO1) ○	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENSO2) □	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

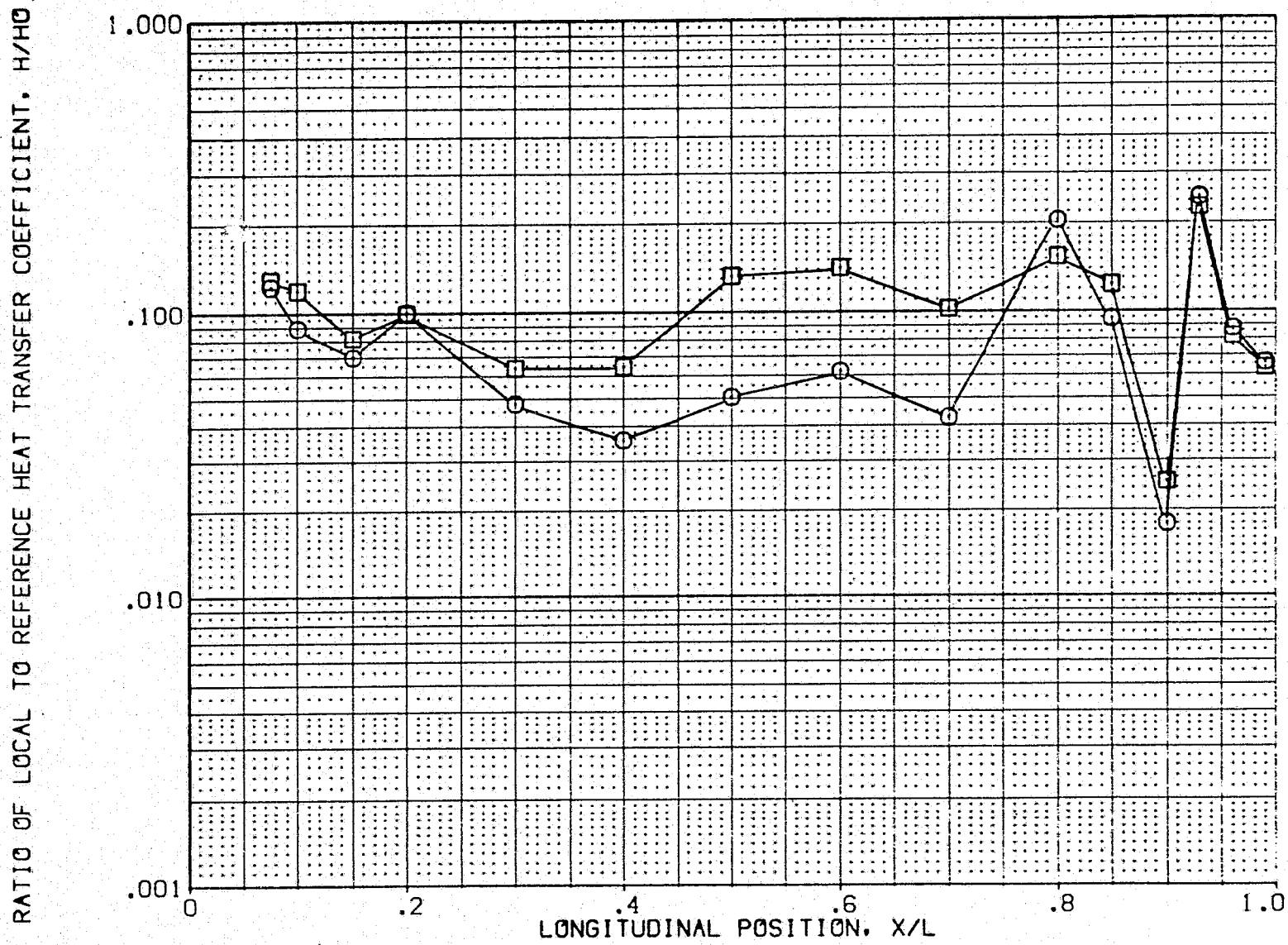


FIG.12 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 225.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENSO1) ○	ARC 3.5-185 IH2O 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENSO2) □	ARC 3.5-185 IH2O 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

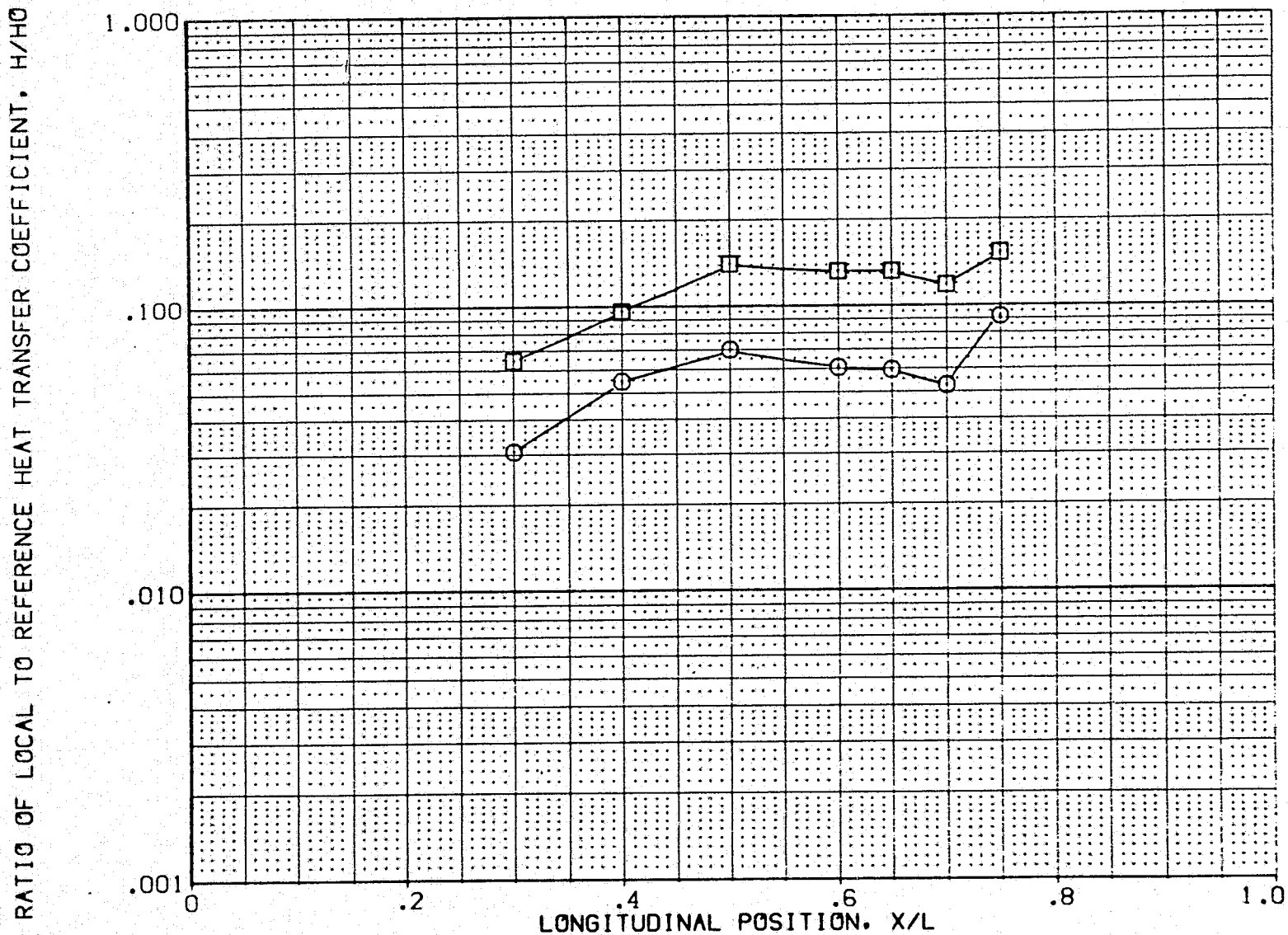


FIG.12 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 247.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS01) ○	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS02) □	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

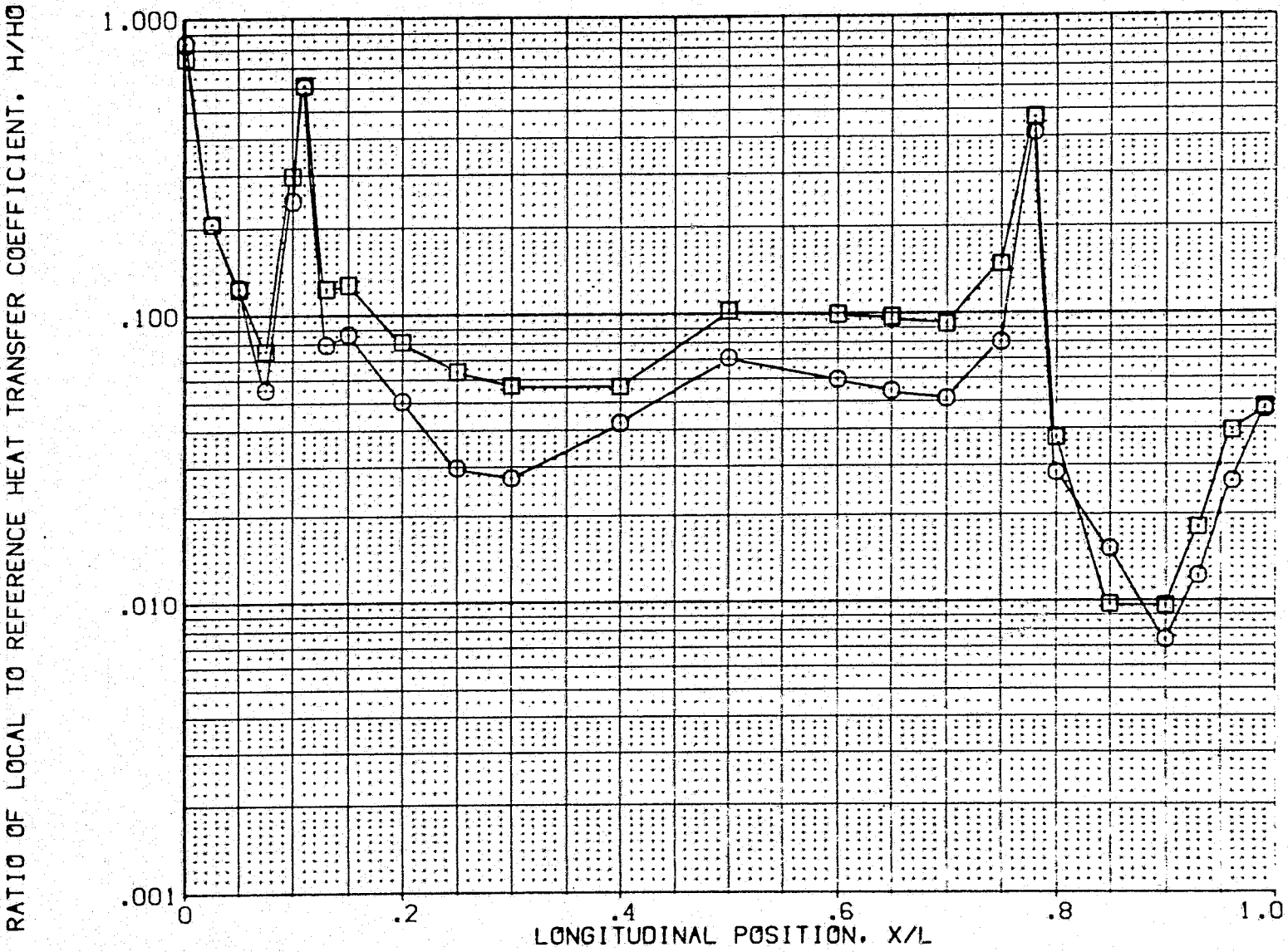


FIG.12 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 270.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENSO1)	○	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENSO2)	□	ARC 3.5-185 IH20 01+T15+S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

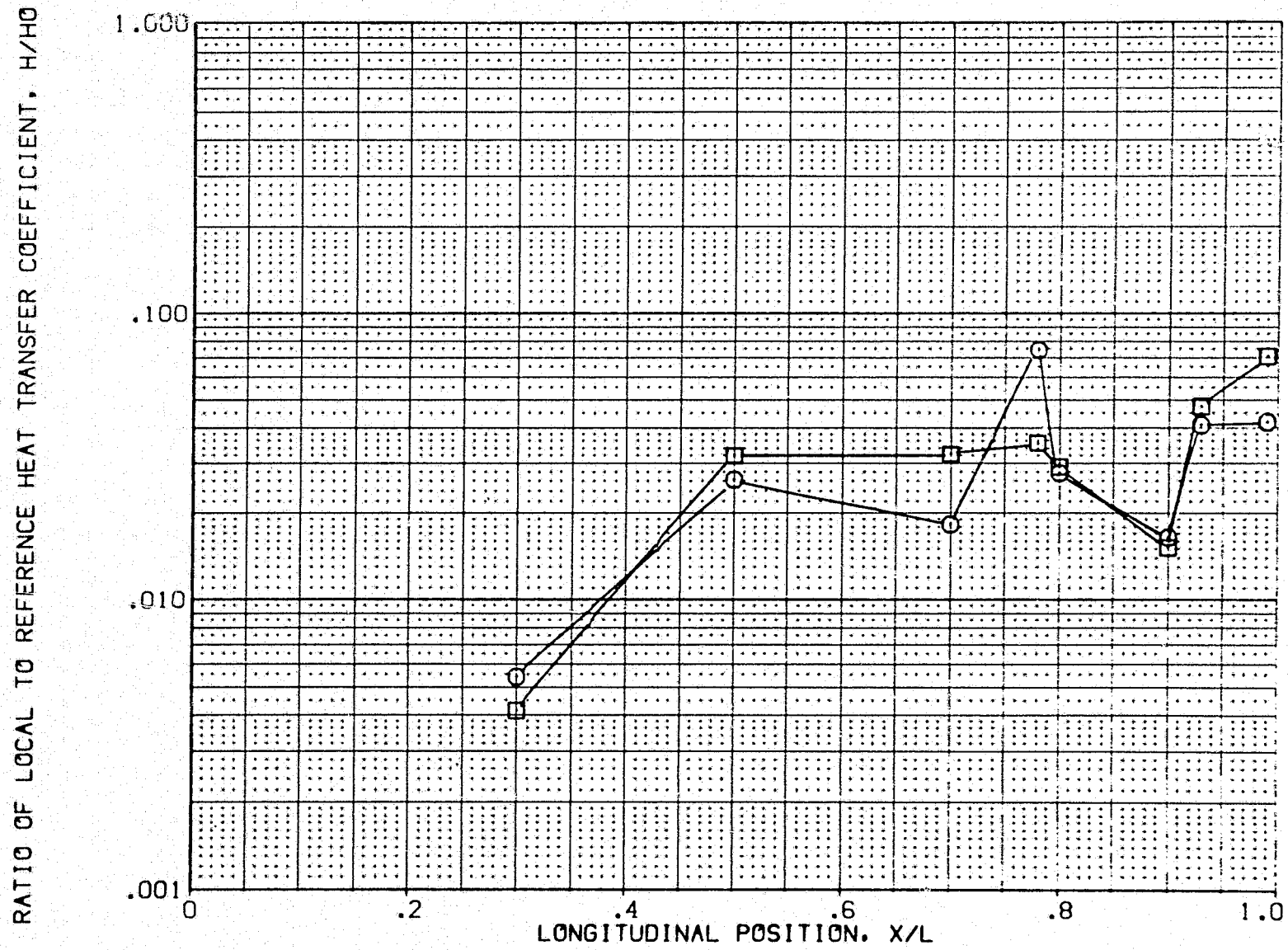


FIG.12 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 315.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENA01) ○	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=0.0	-5.000	.000	5.300	1.500
(RENA02) □	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=0.0	-5.000	.000	5.300	5.000

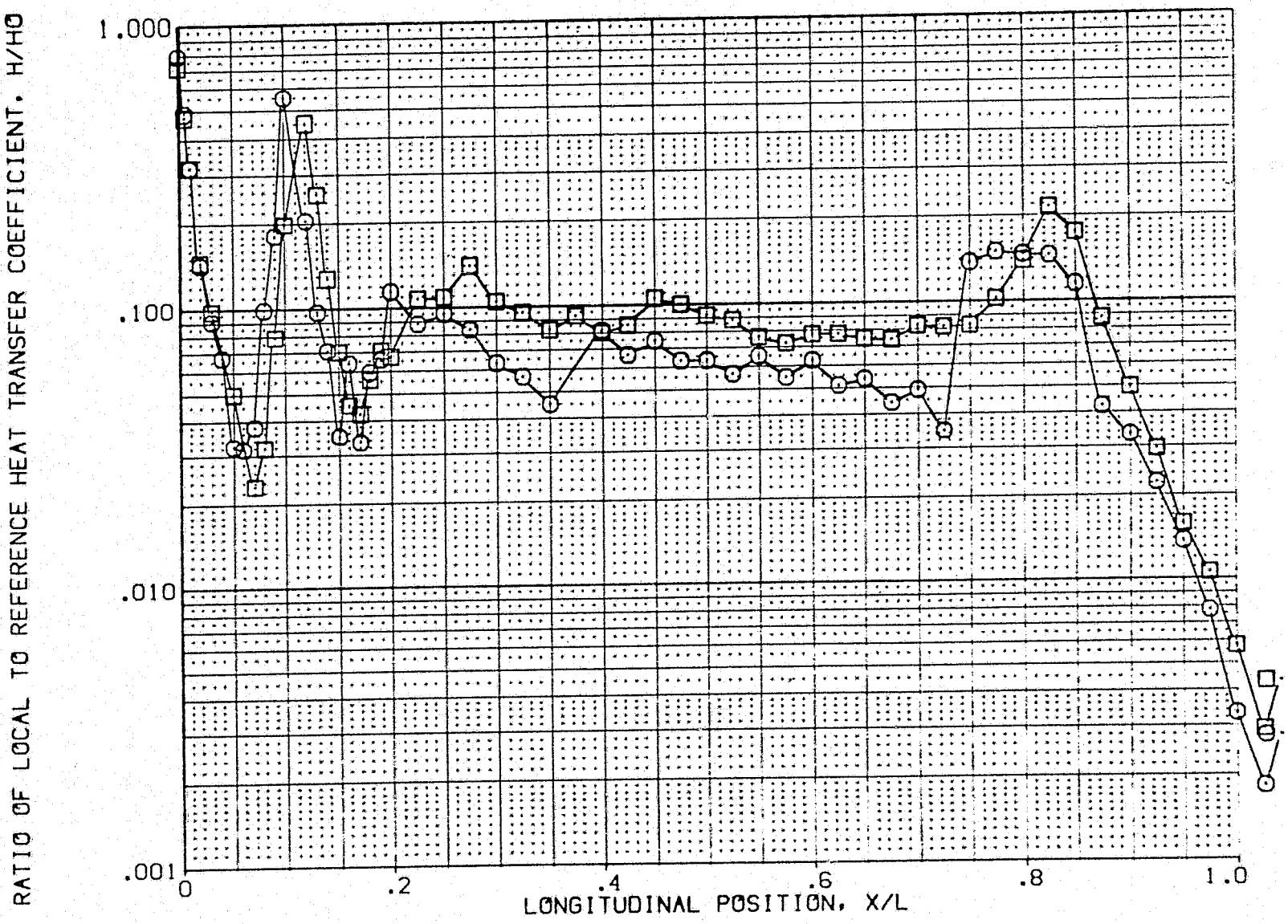


FIG.13 EFFECT OF REYNOLDS NØ. - BØDY

MACH = 5.300 HAW/HT= .900 PHI = .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENC01)	○	ARC 3.5-185 IH20 01+T15+SB	ORB Y=0.875	-5.000	.000	5.300	1.500
(RENC02)	□	ARC 3.5-185 IH20 01+T15+SB	ORB Y=0.875	-5.000	.000	5.300	5.000

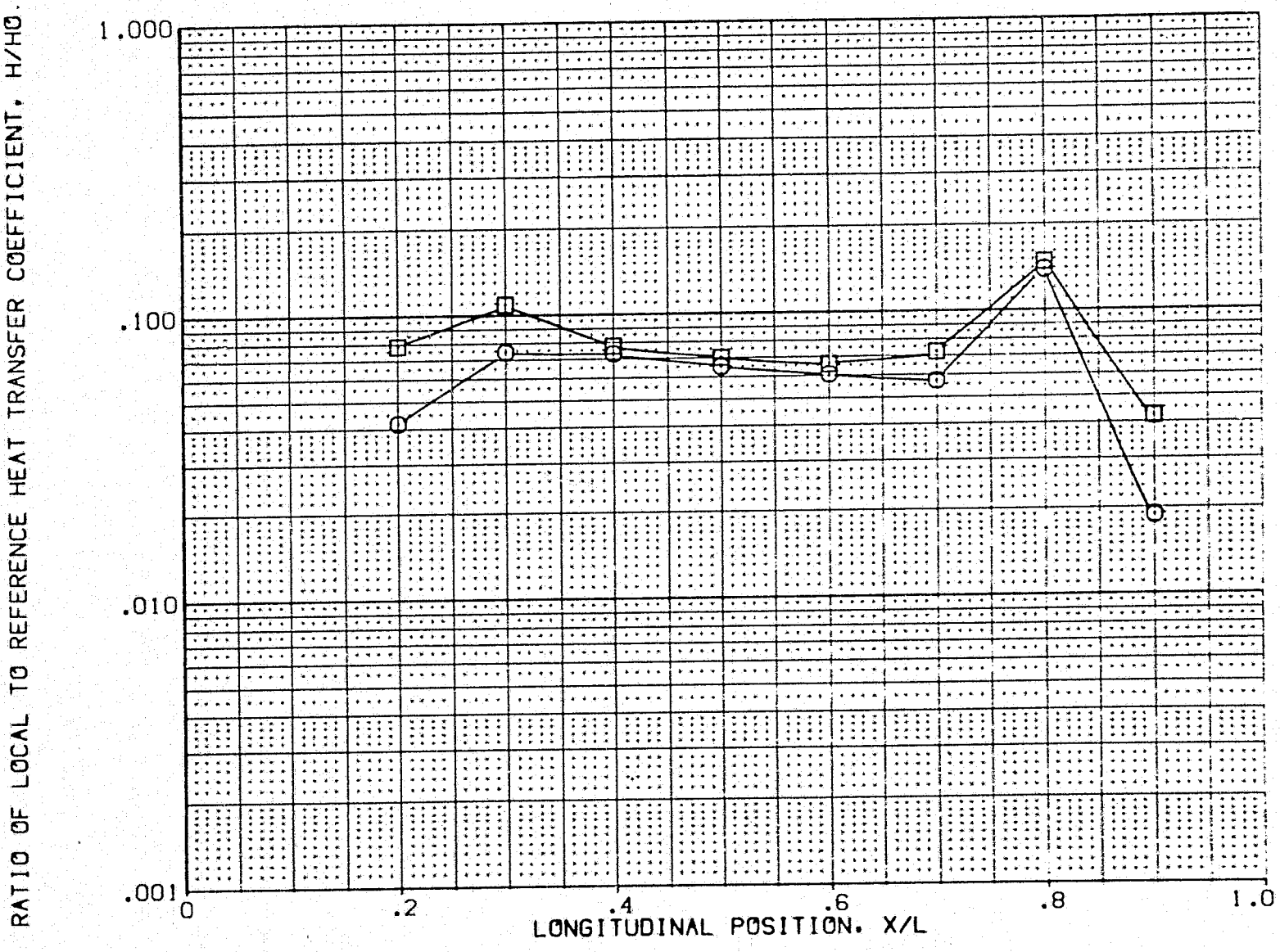


FIG.13 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Y = .875

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN#01)	○	ARC 3.5-185 IH20 01+T15+S8	ORB Z=7.525	-5.000	.000	5.300	1.500
(REN#02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB Z=7.525	-5.000	.000	5.300	5.000

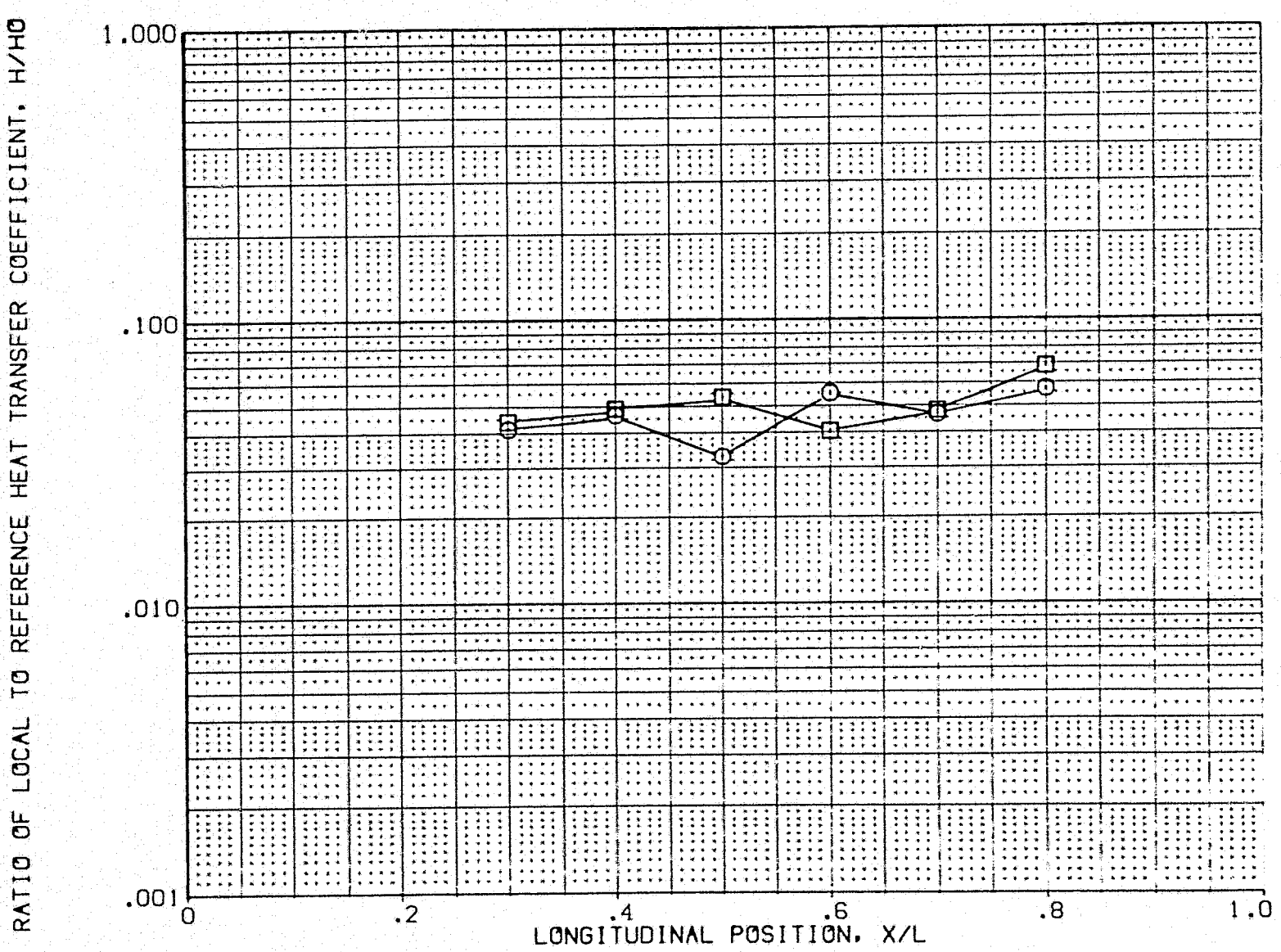


FIG.13 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.525

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN101)	○	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	.000	5.300	1.500
(REN102)	□	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	.000	5.300	5.000

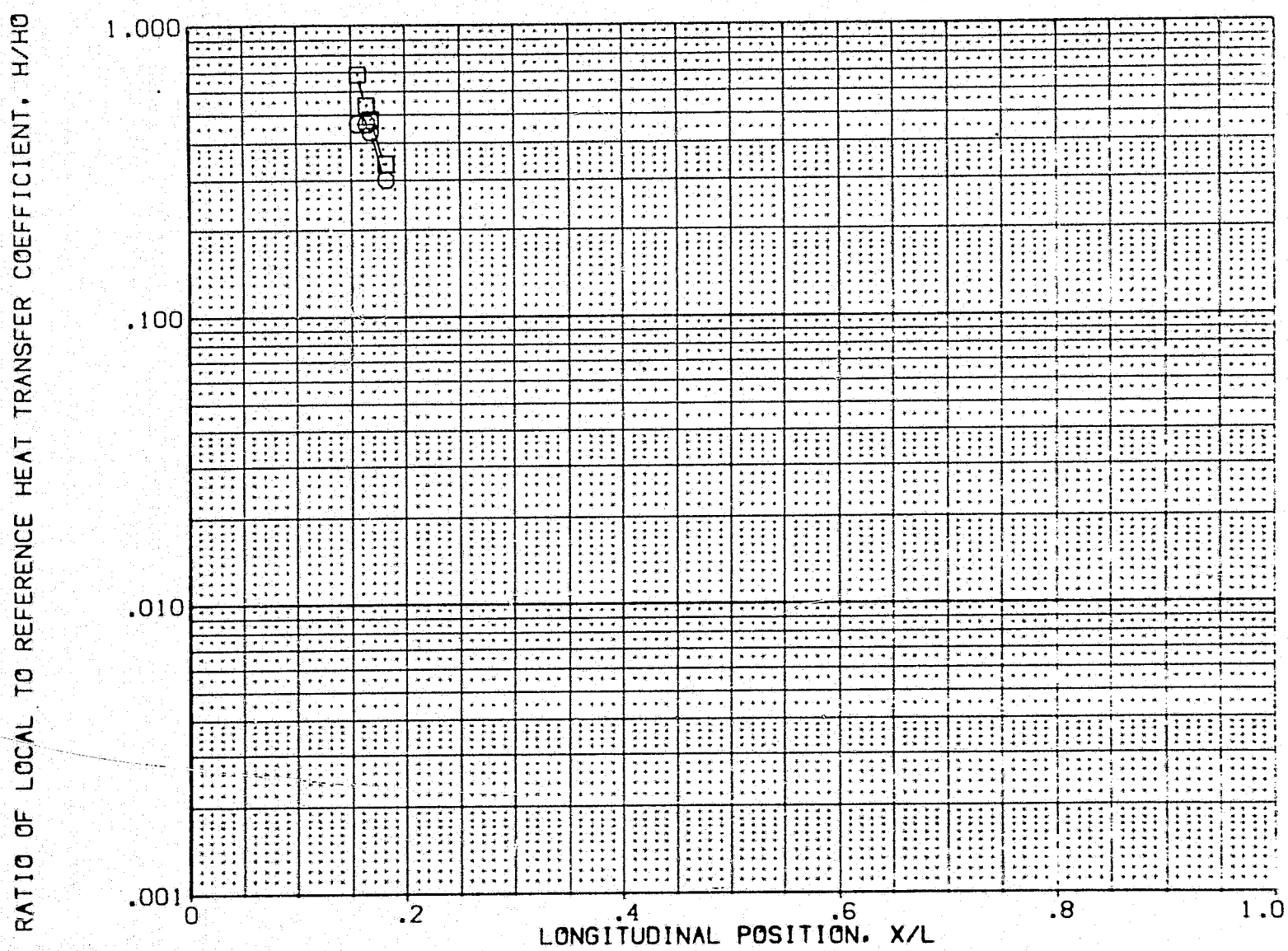


FIG.13 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.910

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN101)	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	.000	5.300	1.500
(REN102)	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	.000	5.300	5.000

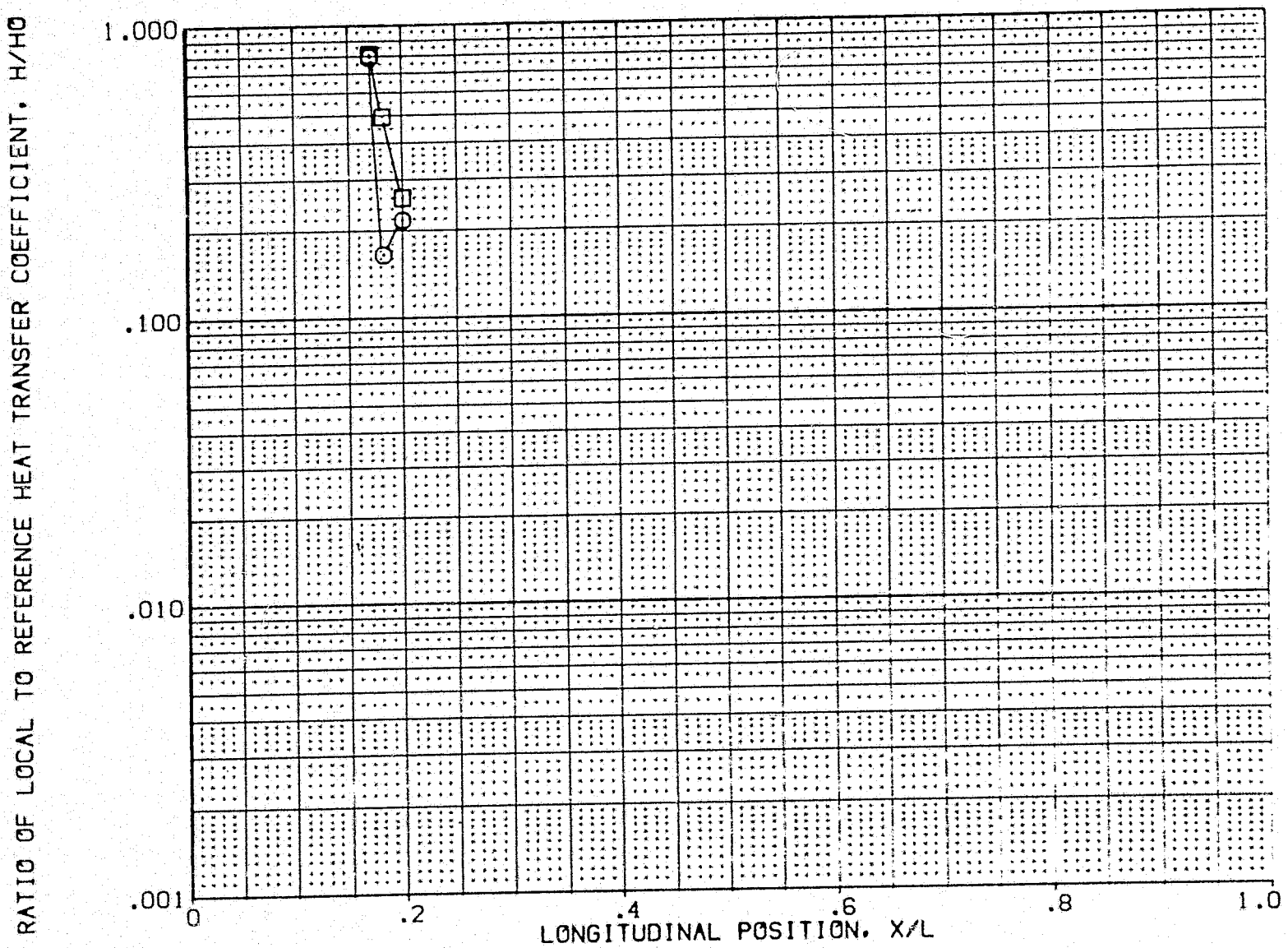


FIG.13 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.137

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN101)	○	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	.000	5.300	1.500
(REN102)	□	ARC 3.5-185 IH20 01+T15+S8	ORB WINDOWS	-5.000	.000	5.300	5.000

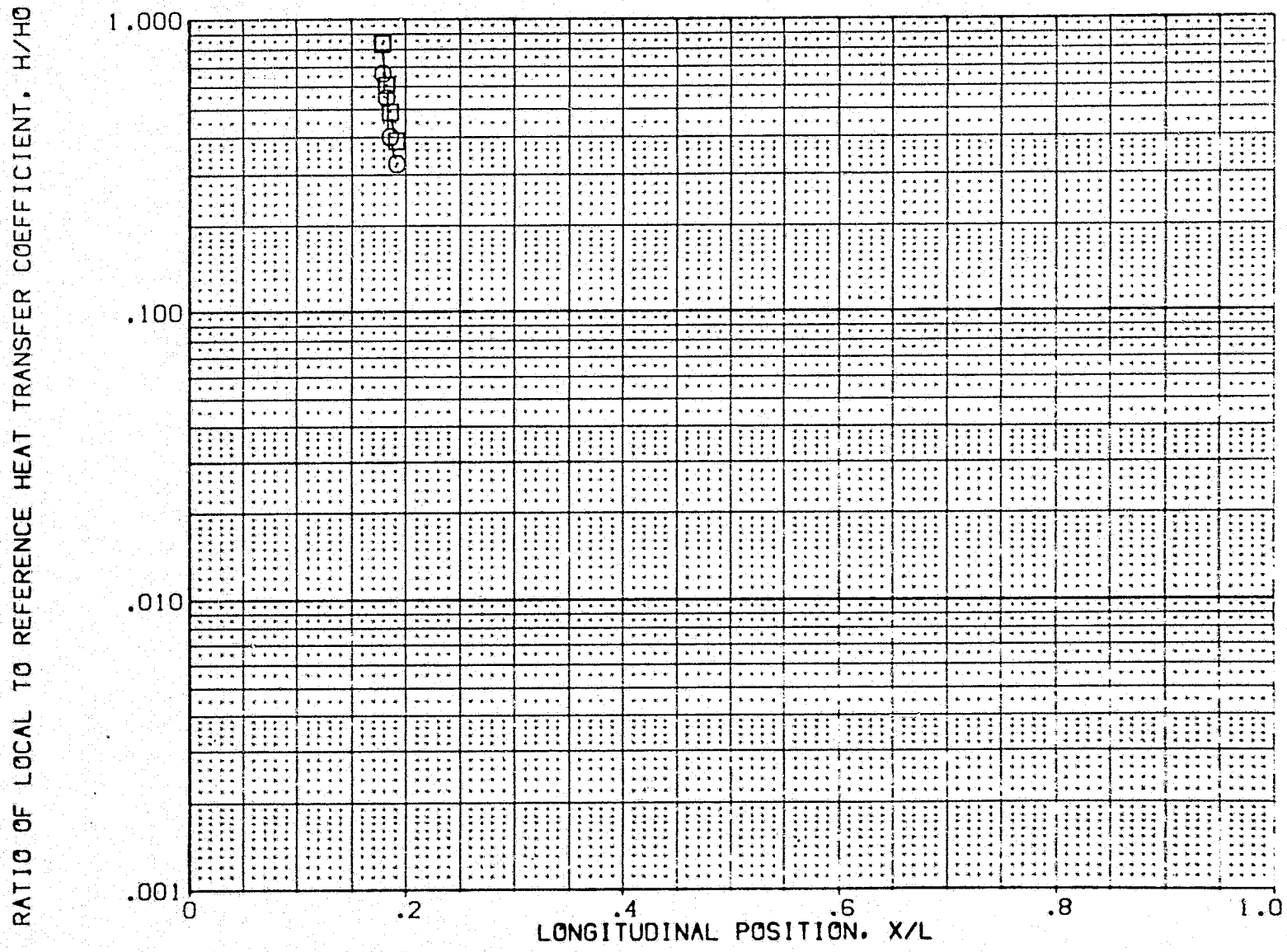


FIG.13 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.365

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENM01) ○	ARC 3.5-185 IH20 01+T15+S8	ORB Z=8.295	-5.000	.000	5.300	1.500
(RENM02) □	ARC 3.5-185 IH20 01+T15+S8	ORB Z=8.295	-5.000	.000	5.300	5.000

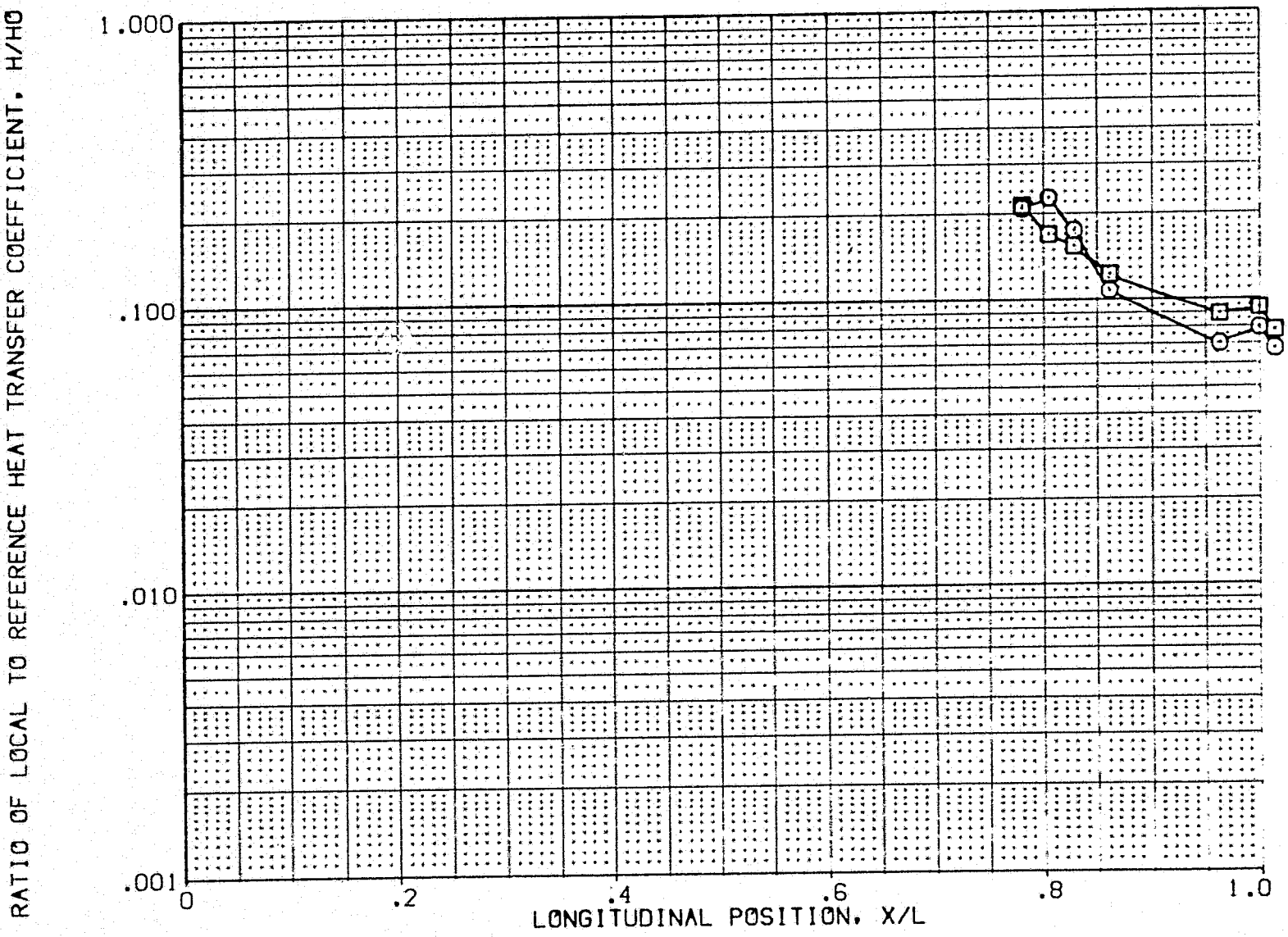


FIG.13 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.295

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENJ01)	○	ARC 3.5-185 IH20 01+T15+S8	ORB Z=8.379	-5.000	.000	5.300	1.500
(RENJ02)	□	ARC 3.5-185 IH20 01+T15+S8	ORB Z=8.379	-5.000	.000	5.300	5.000

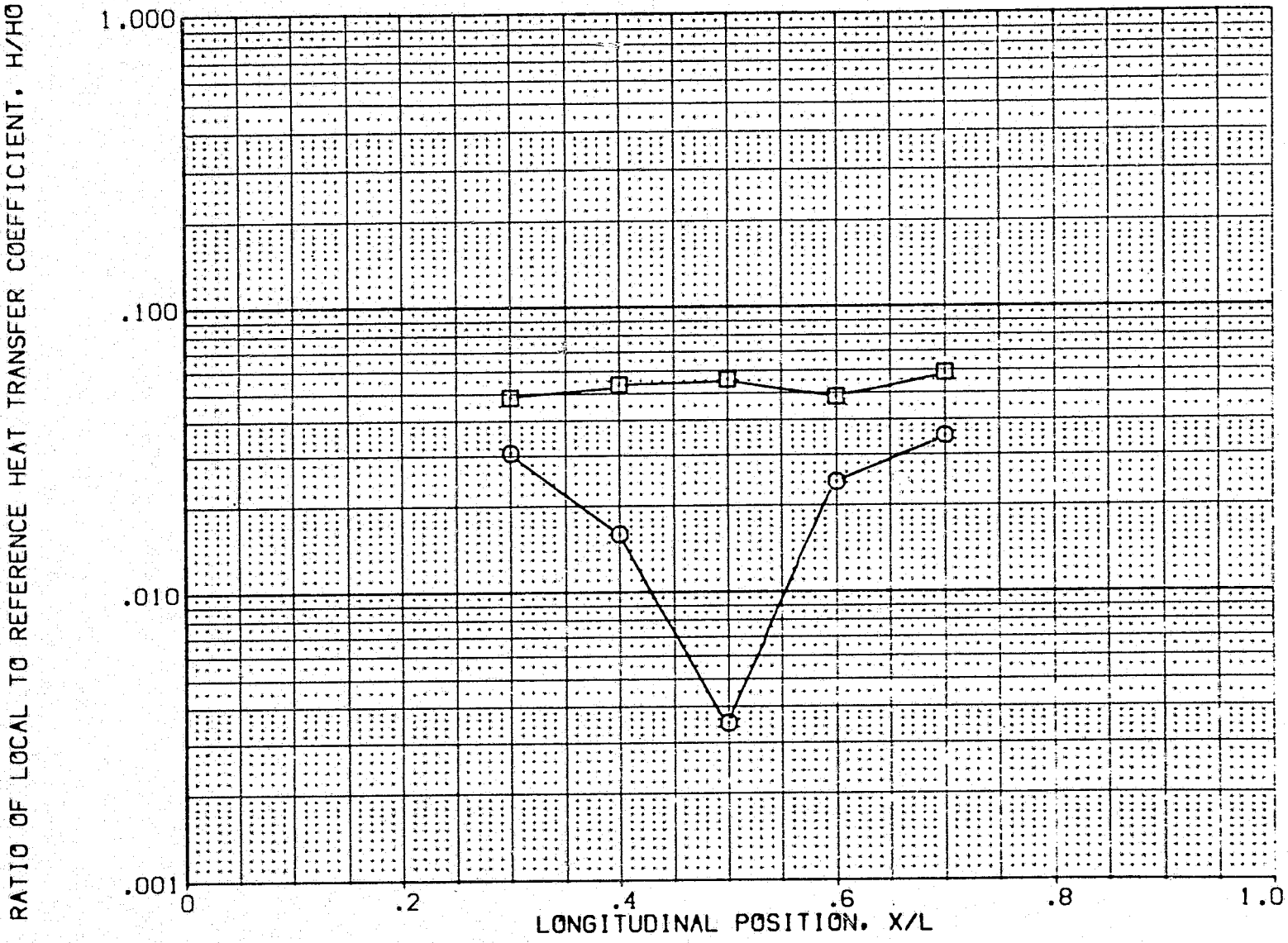


FIG.13 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.379

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN001)	○	ARC 3.5-185 IH20 01+T15+S8	OMS TOP	-5.000	.000	5.300	1.500
(REN002)	□	ARC 3.5-185 IH20 01+T15+S8	OMS TOP	-5.000	.000	5.300	5.000

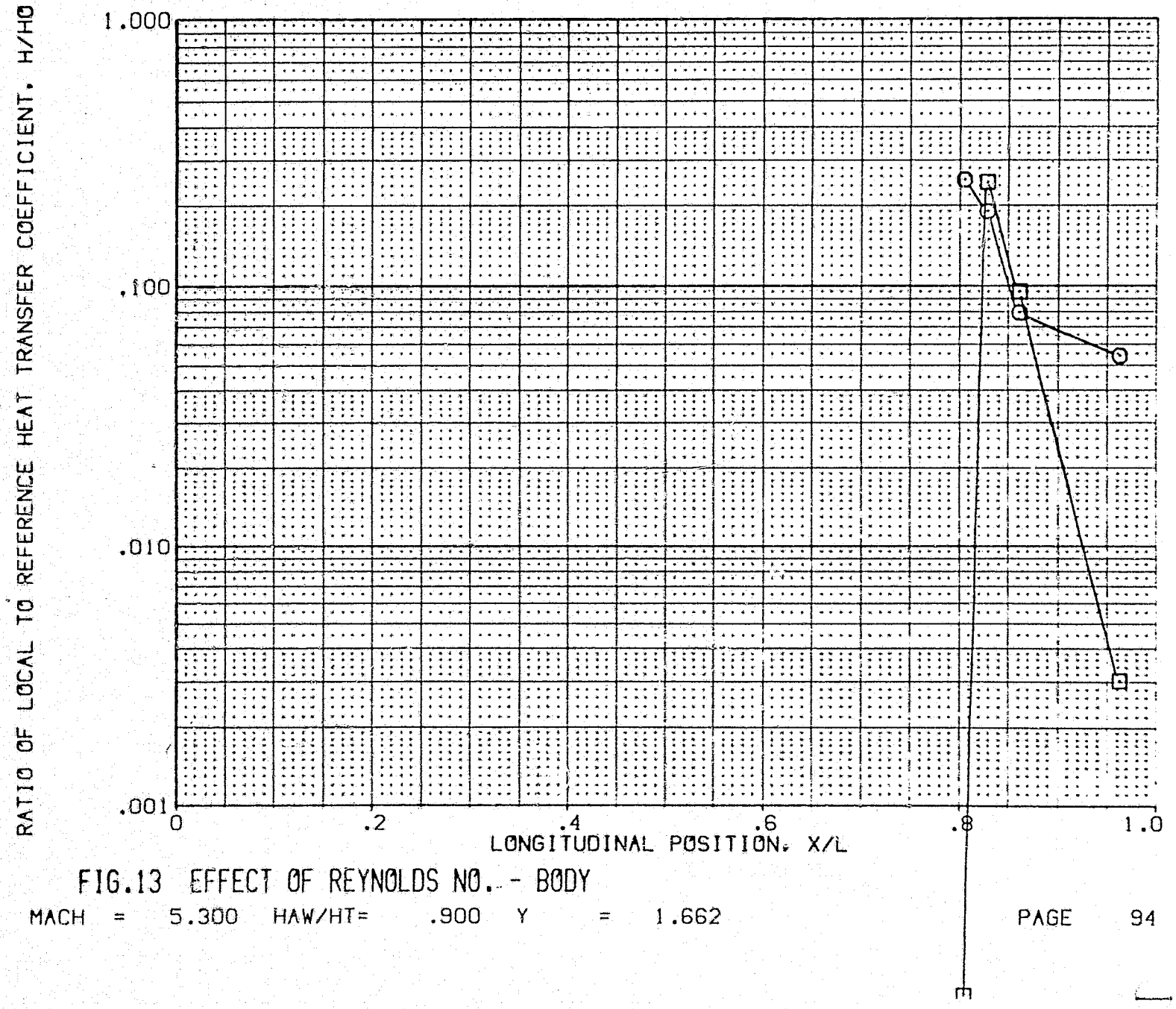


FIG.13 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Y = 1.662

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENKO1) ○	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=180	-5.000	.000	5.300	1.500
(RENKO2) □	ARC 3.5-185 IH20 01+T15+S8	ORB PHI=180	-5.000	.000	5.300	5.000

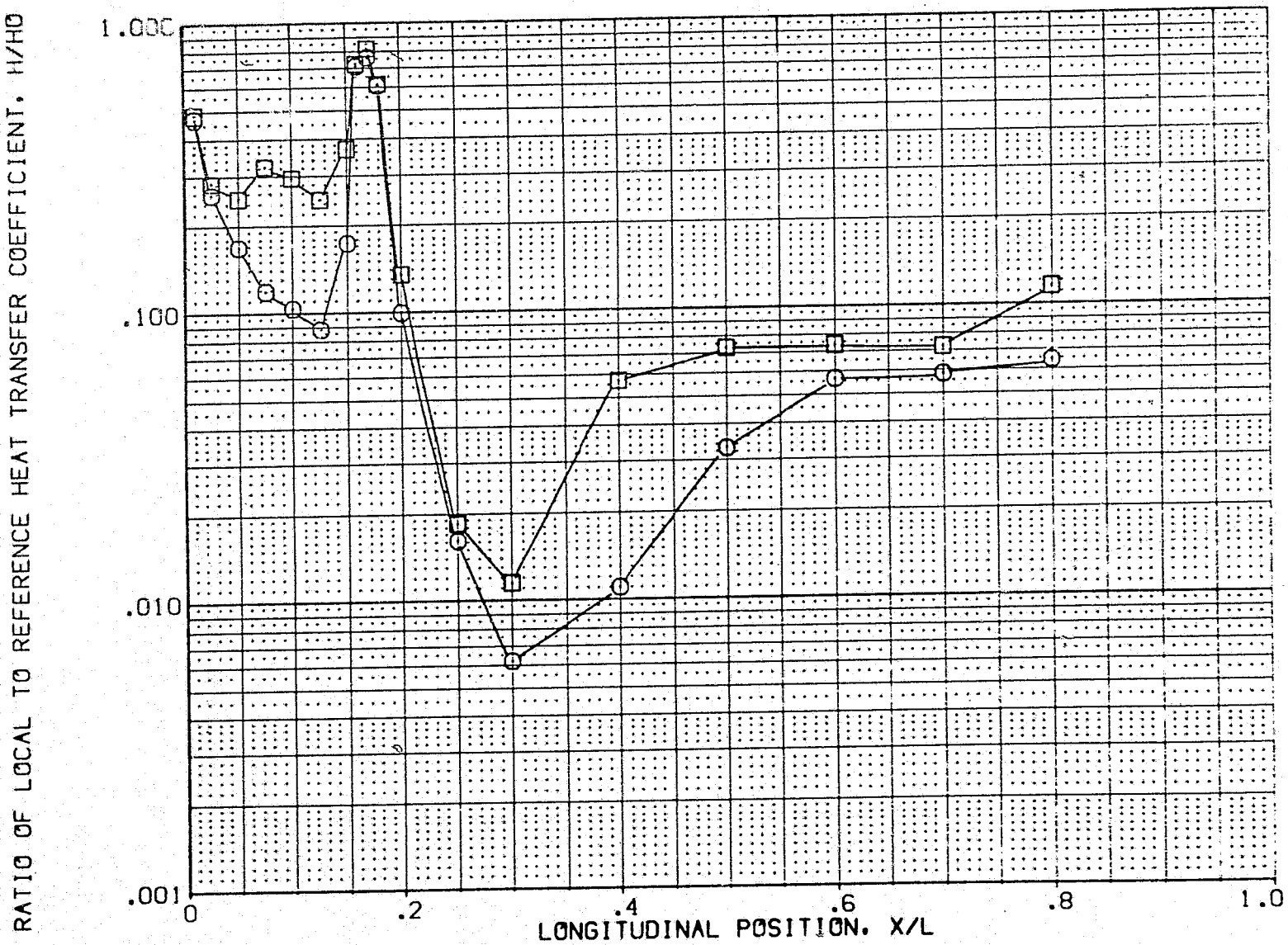


FIG.13 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 PHI = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW01)	○	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW02)	□	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

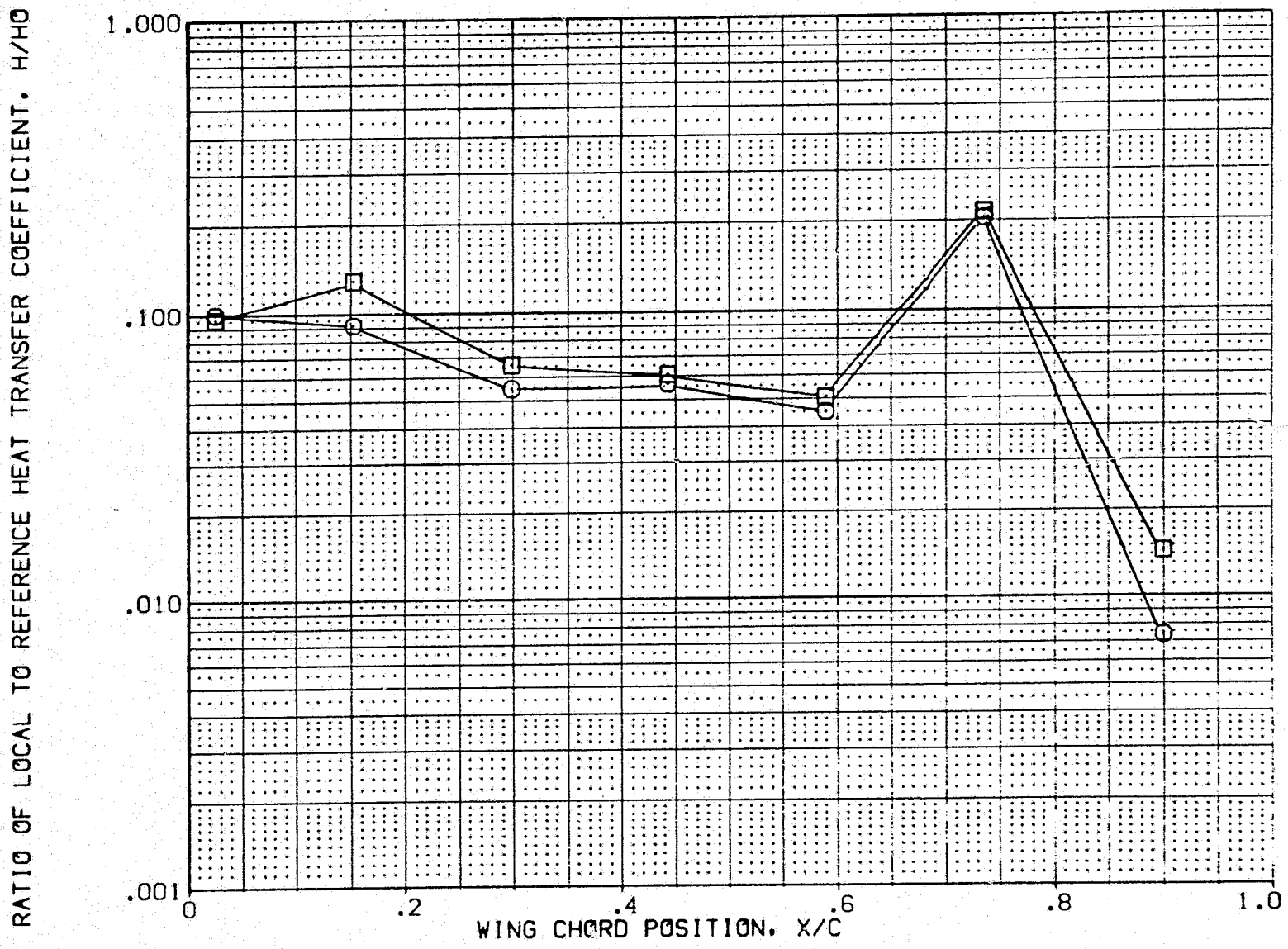


FIG.14 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .250

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW01)	○	ARC 3.5-185 IH20 01+T15+SB	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW02)	□	ARC 3.5-185 IH20 01+T15+SB	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

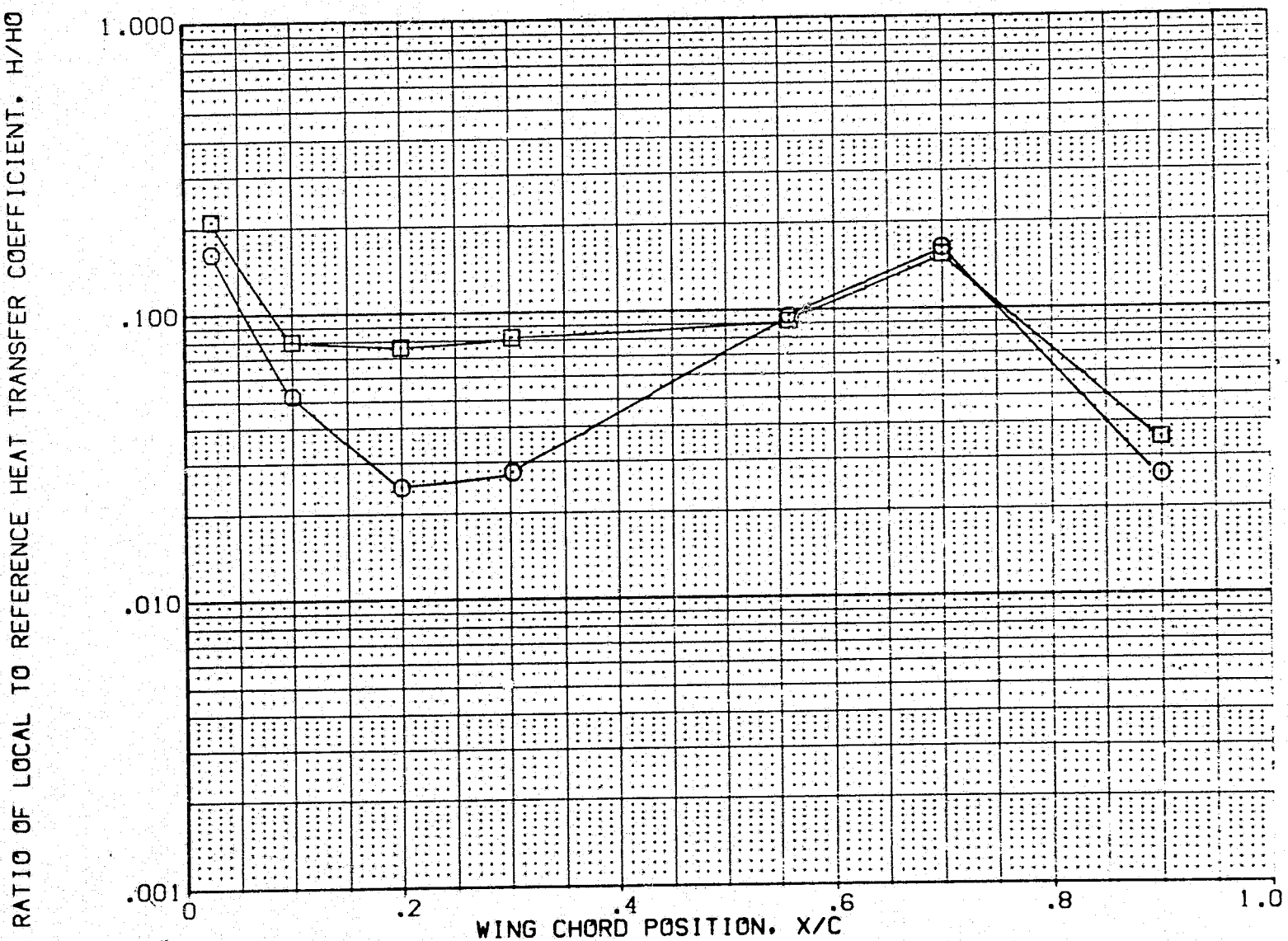


FIG.14 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW01) ○	ARC 3.5-18S 1H20 01+T1S+S8	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW02) □	ARC 3.5-18S 1H20 01+T1S+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

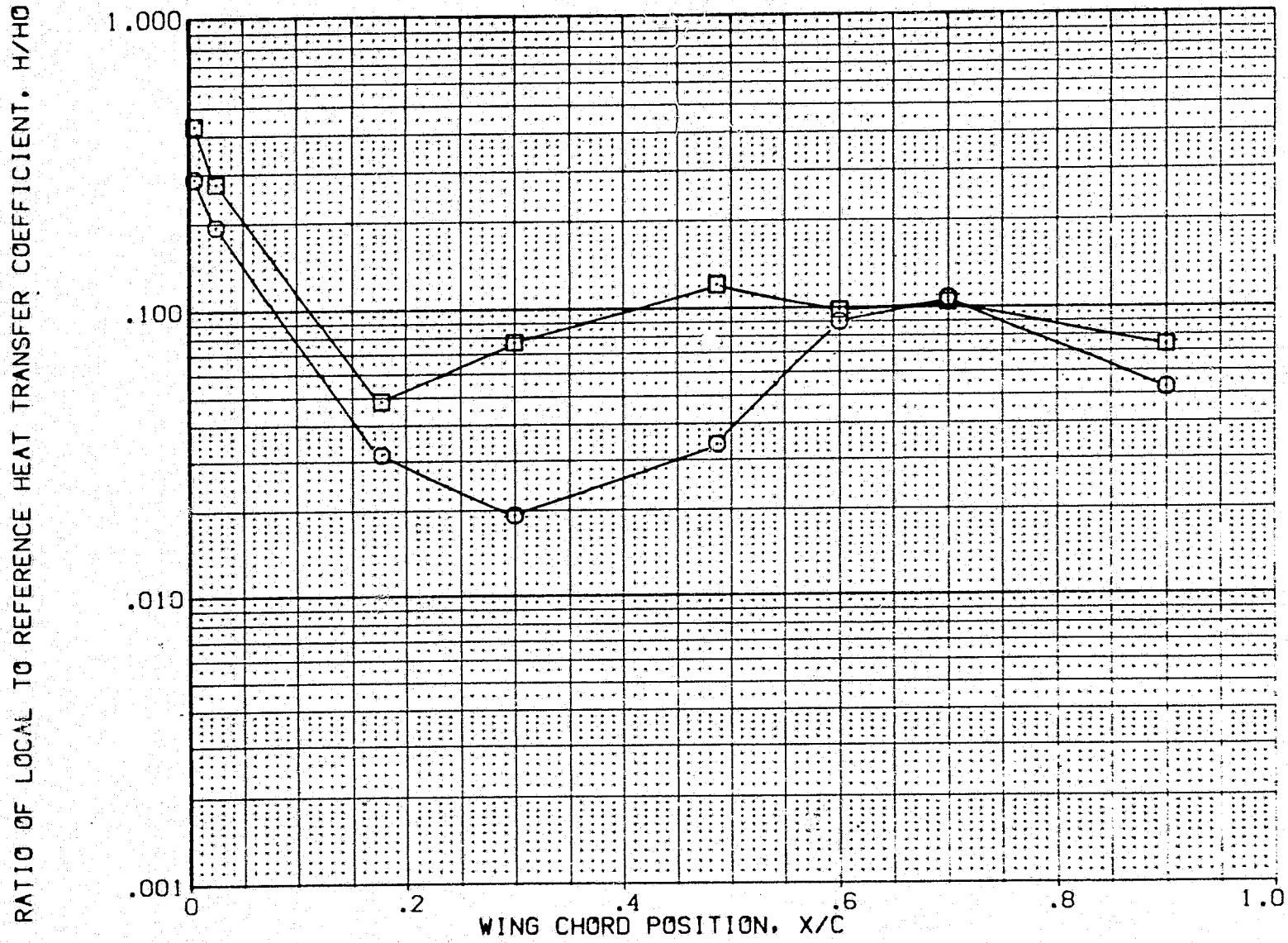


FIG.14 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV01)	○	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

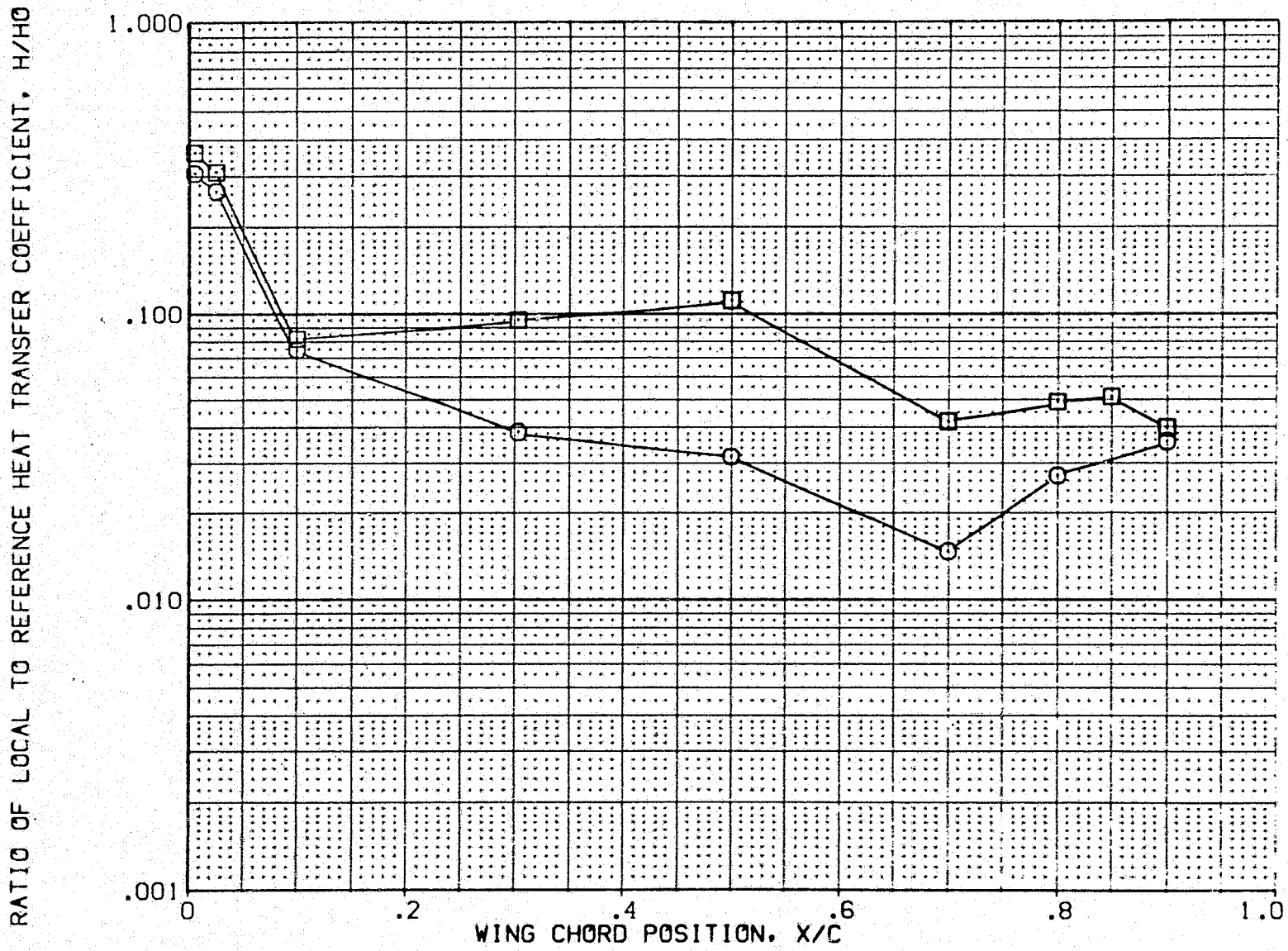


FIG.14 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .750

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW01)	○	ARC 3.5-185 1H20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW02)	□	ARC 3.5-185 1H20 01+T15+S8	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

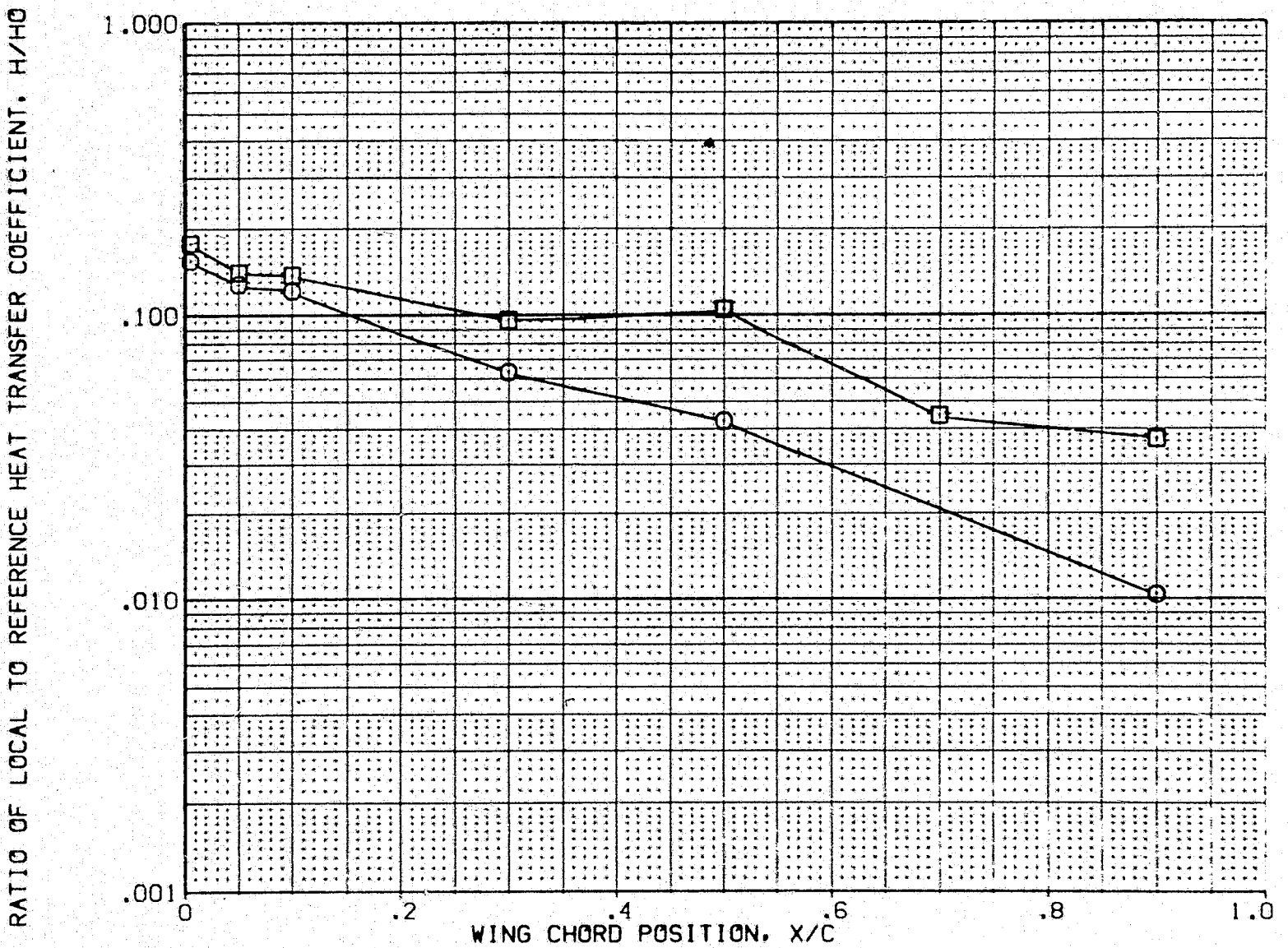


FIG.14 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .950

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX01)	○	ARC 3.5-185 1H20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX02)	□	ARC 3.5-185 1H20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000

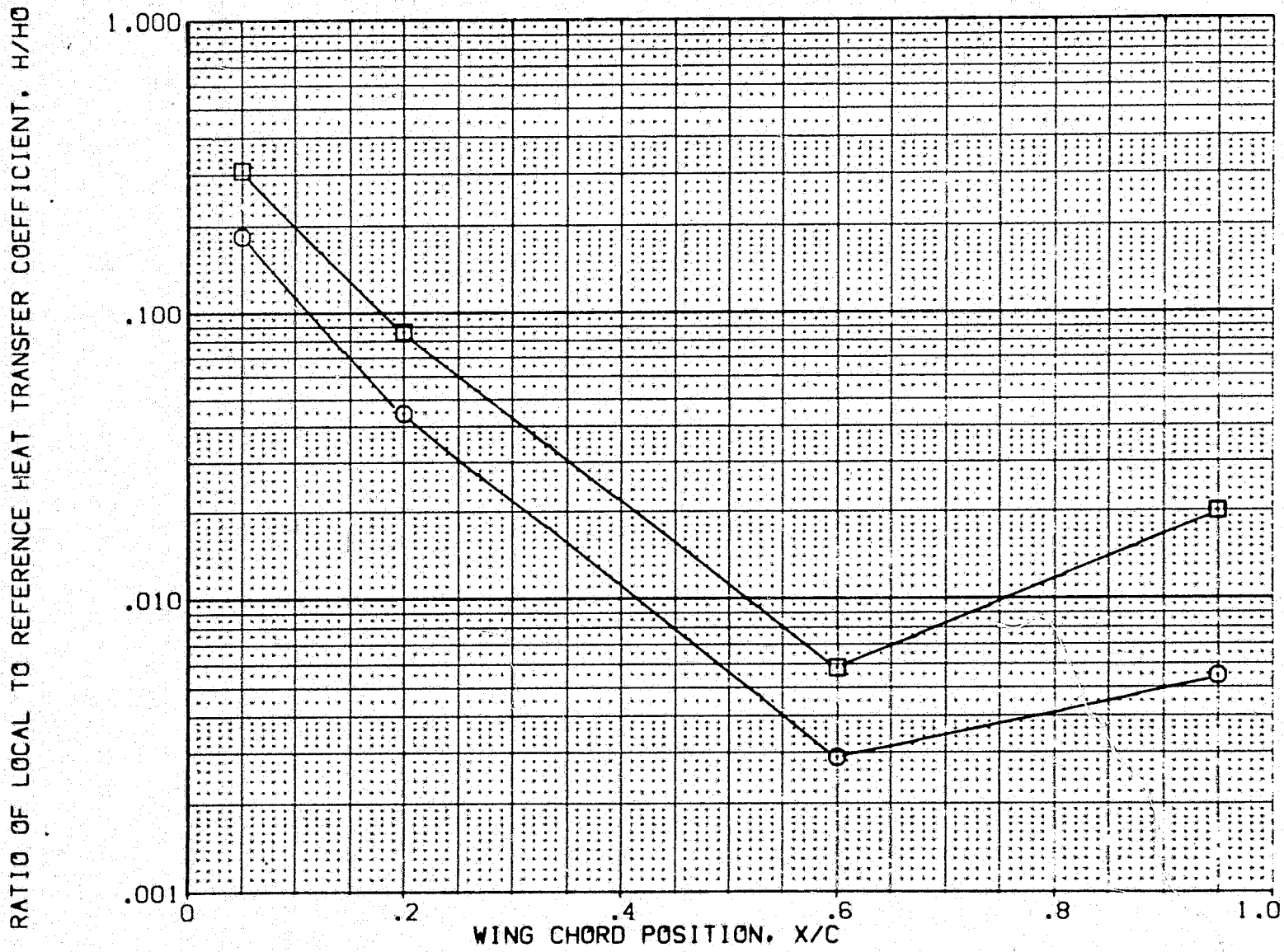


FIG.14 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX01)	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX02)	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000

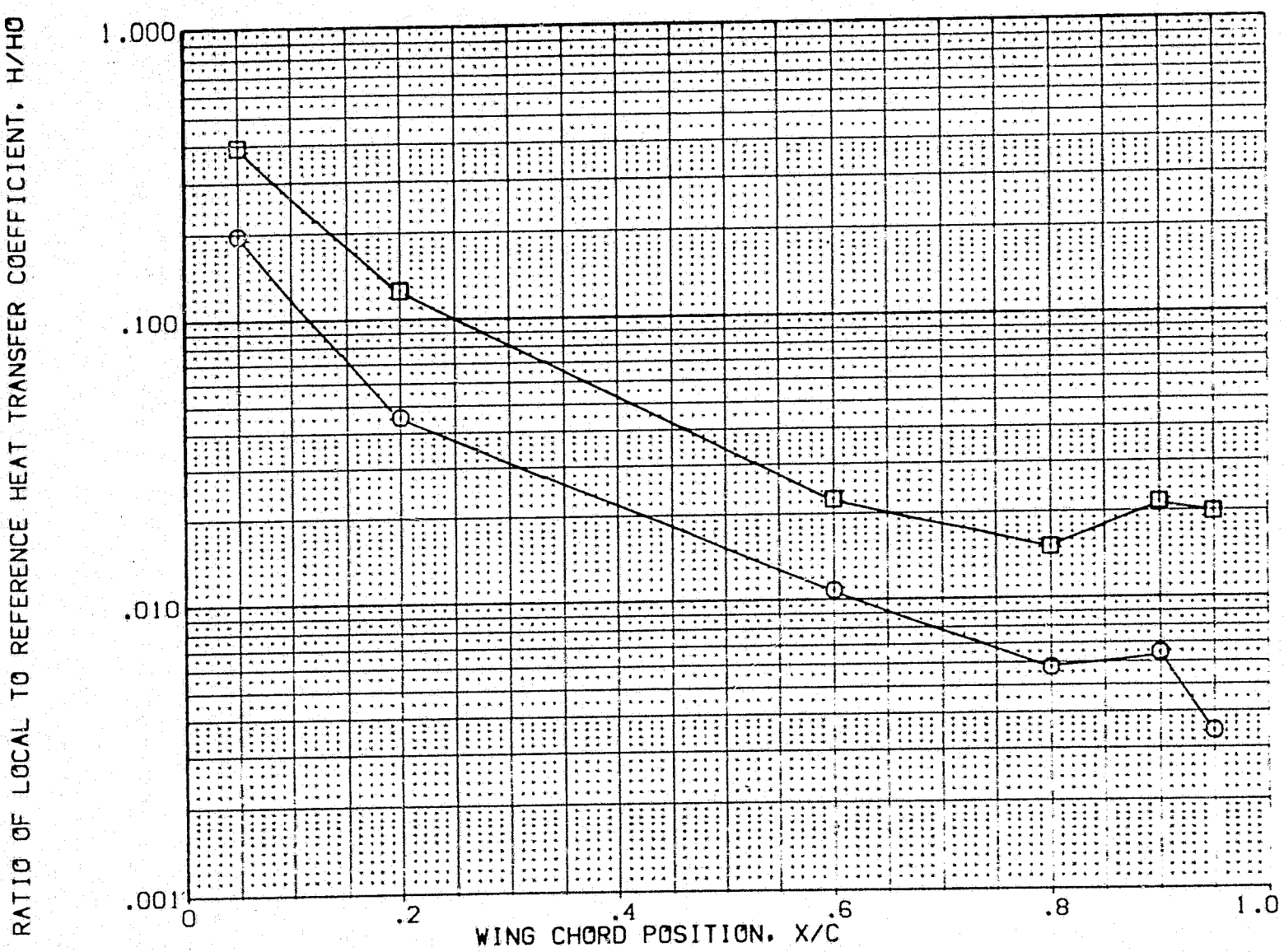


FIG.14 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .600

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX01)	○	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX02)	□	ARC 3.5-185 IH20 01+T15+S8	WING UPPER SURF.	-5.000	.000	5.300	5.000

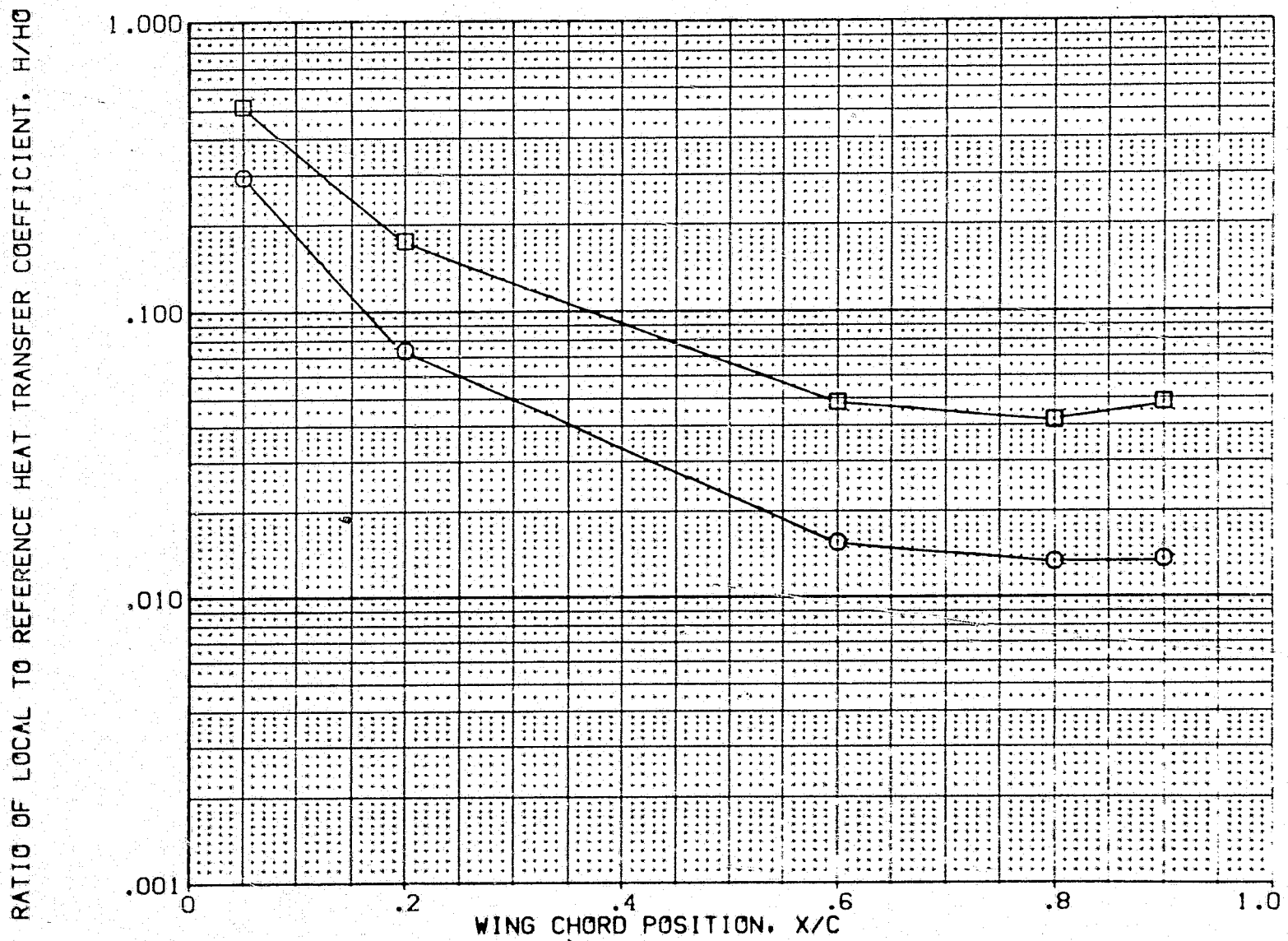


FIG.14 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .800

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV01)	○	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

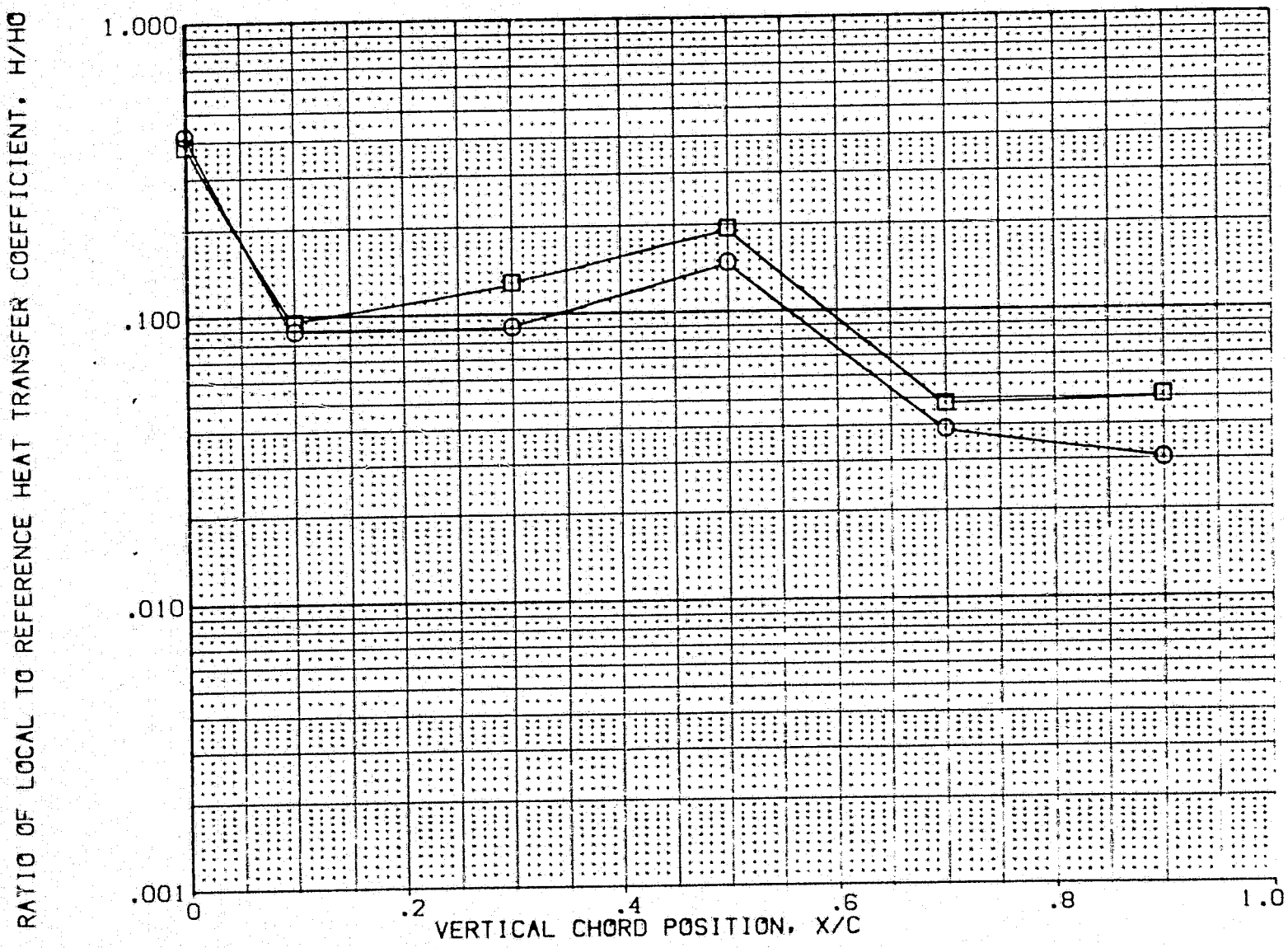


FIG.15 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .299

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV01)	○	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

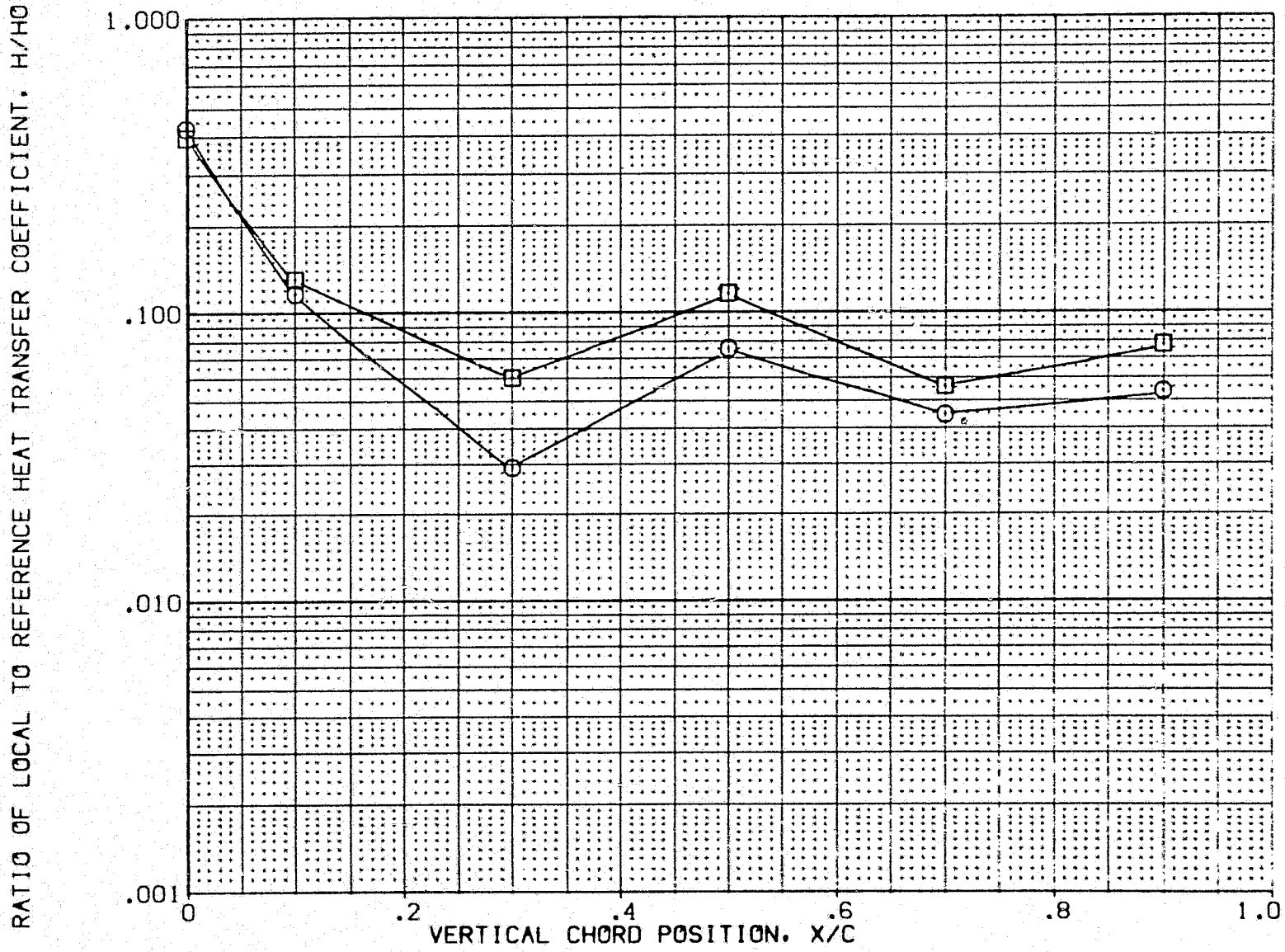


FIG.15 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .532

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENVO1)	○	ARC 3.5-18S 1H20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENVO2)	□	ARC 3.5-18S 1H20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

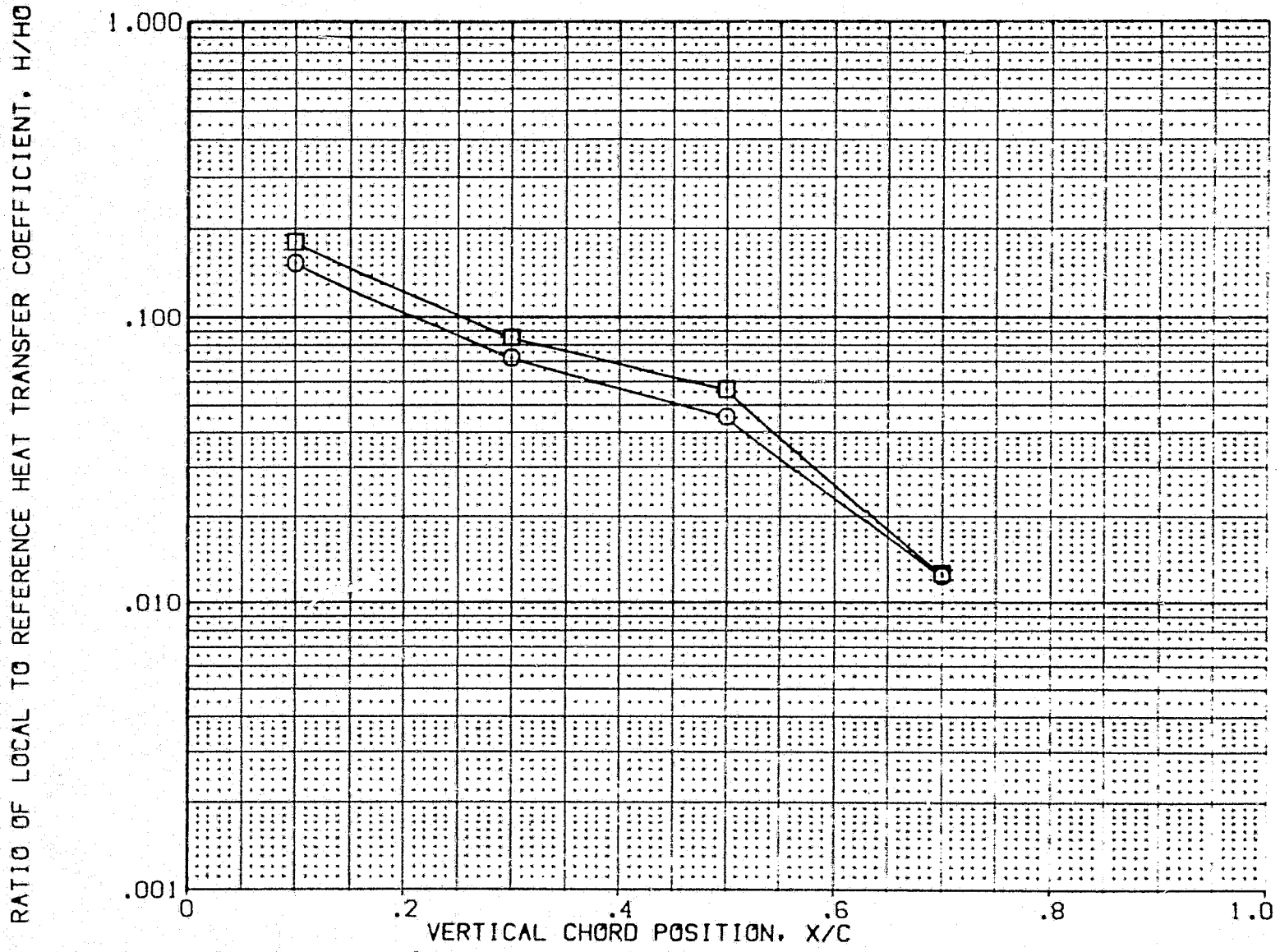


FIG.15 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .765

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV01)	○	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

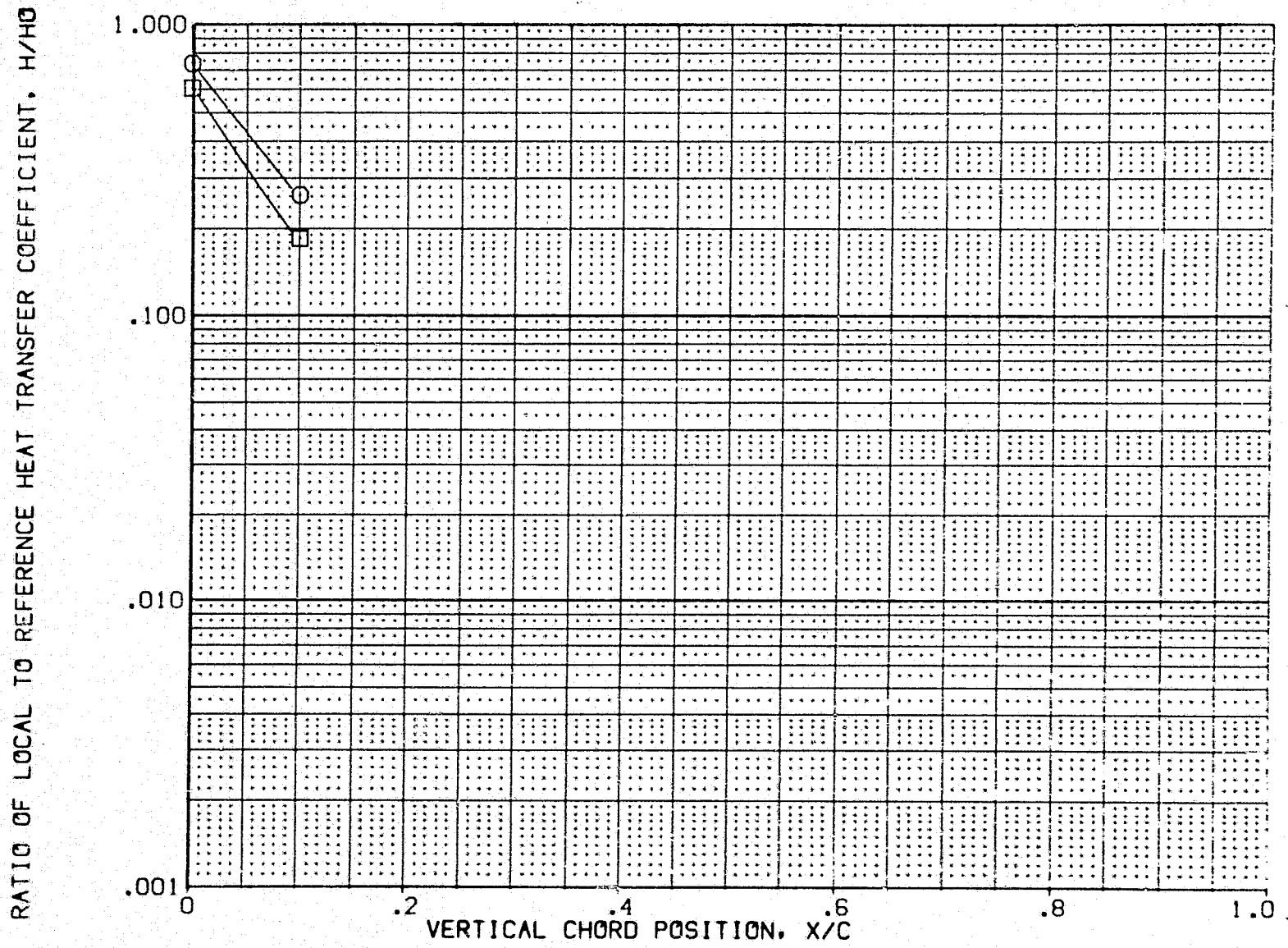


FIG.15 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .905

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV01)	○	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV02)	□	ARC 3.5-185 IH20 01+T15+S8	VERTICAL TAIL	-5.000	.000	5.300	5.000

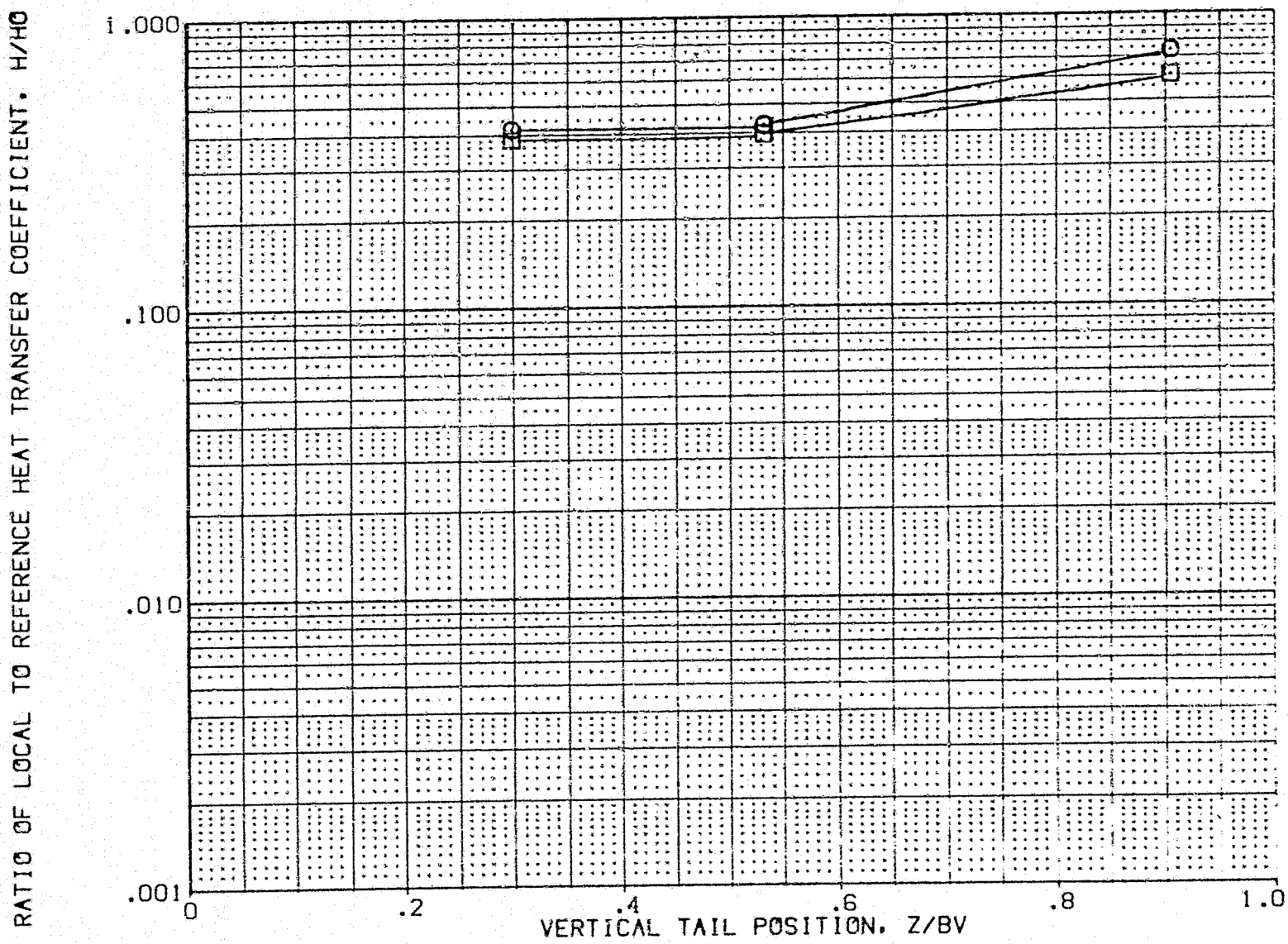


FIG.15 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 X/C = .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENTO8)	○	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	3.700
(RENTIO)	□	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	7.000

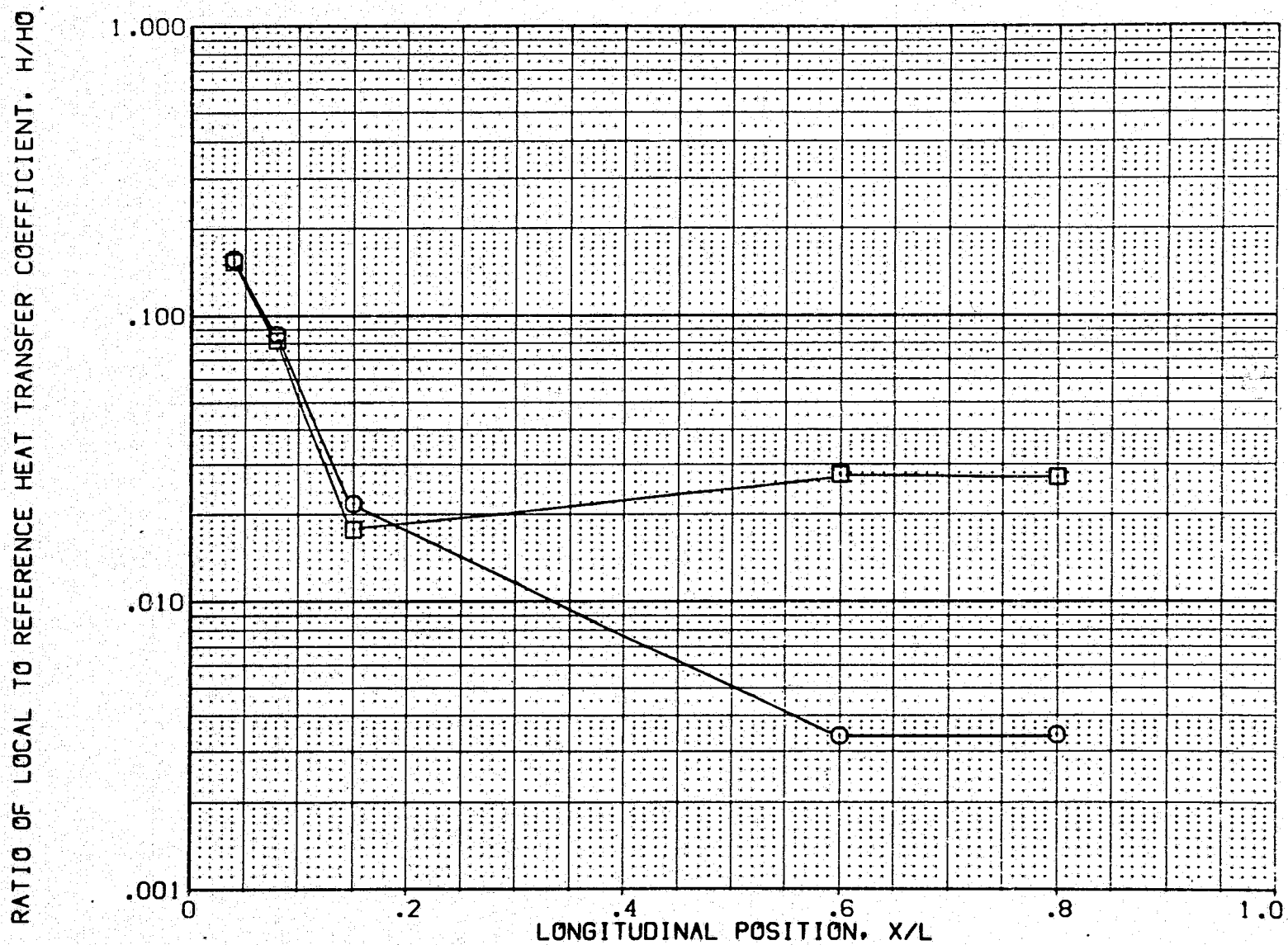


FIG.16 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 7.300 HAW/HT= .900 THETA = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT08) ○	ARC 3.5-185 1H20 01+T15	EXTERNAL TANK	.000	.000	7.300	3.700
(RENT10) □	ARC 3.5-185 1H20 01+T15	EXTERNAL TANK	.000	.000	7.300	7.000

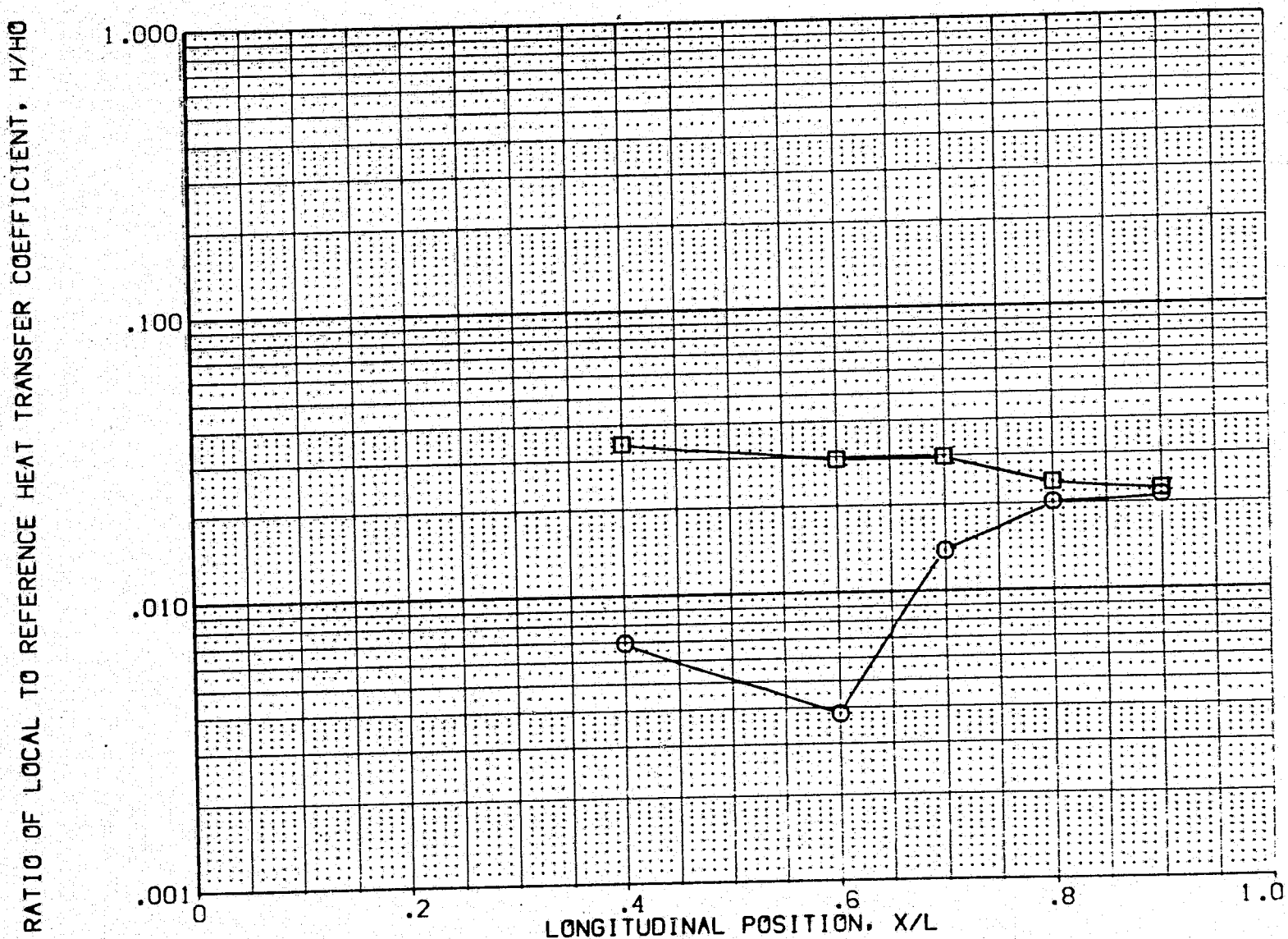


FIG.16 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 7.300 HAW/HT= .900 THETA = 45.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT08) ○	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	3.700
(RENT10) □	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	7.000

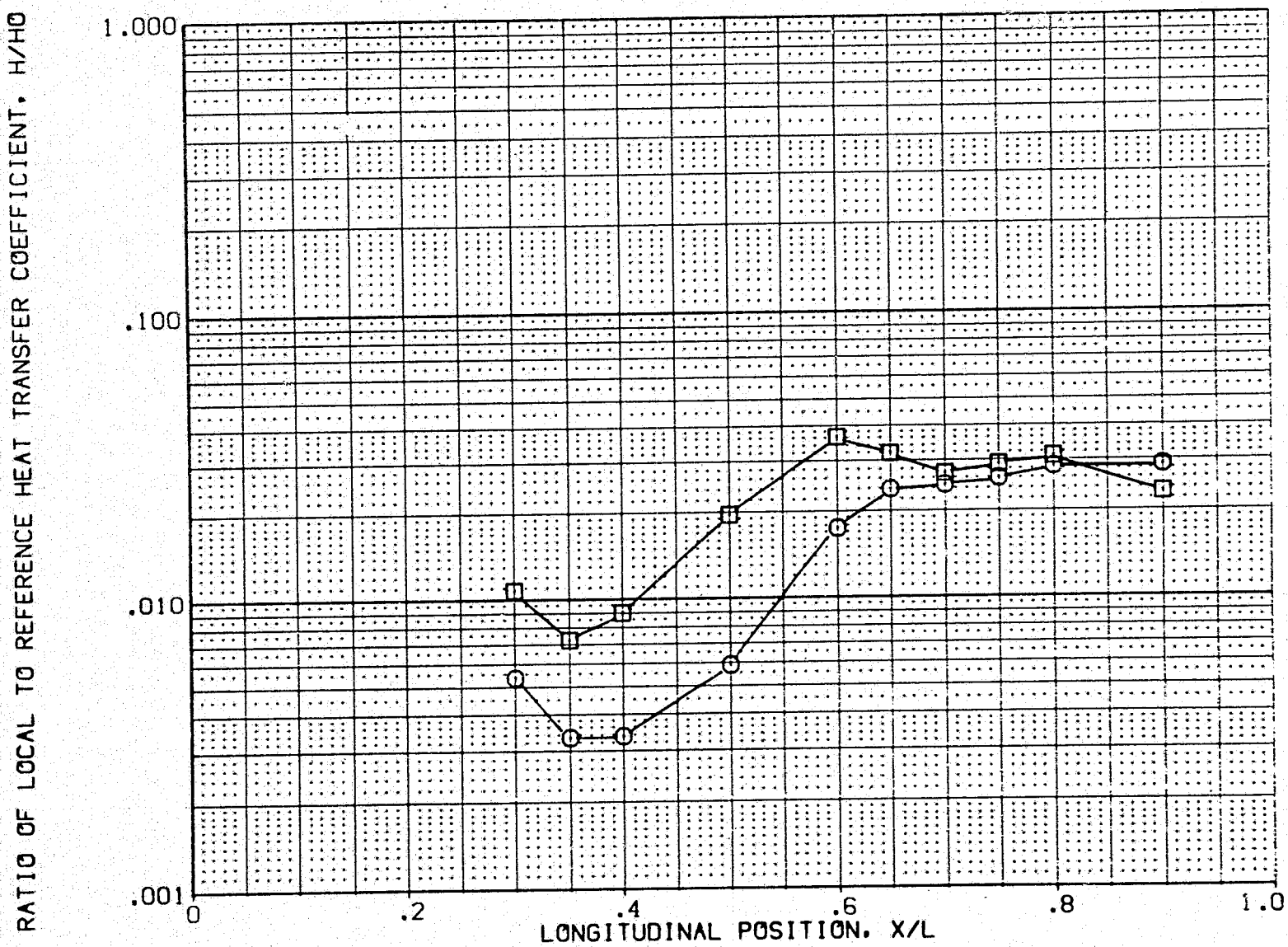


FIG.16 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 7.300 HAW/HT= .900 THETA = 67.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT08)	○	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	3.700
(RENT10)	□	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	7.000

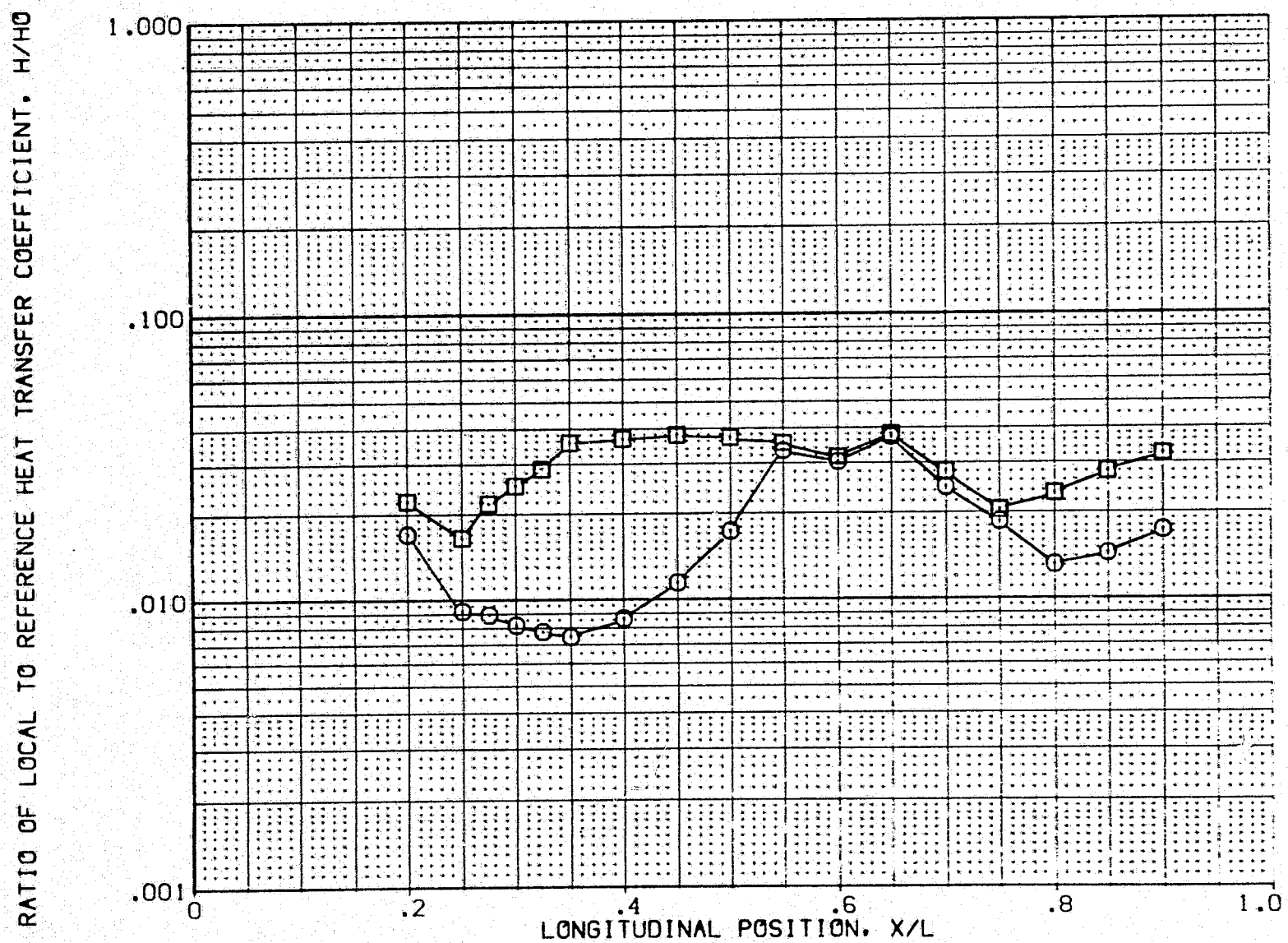


FIG.16 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 7.300 HAW/HT= .900 THETA = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT08) ○	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	3.700
(RENT10) □	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	7.000

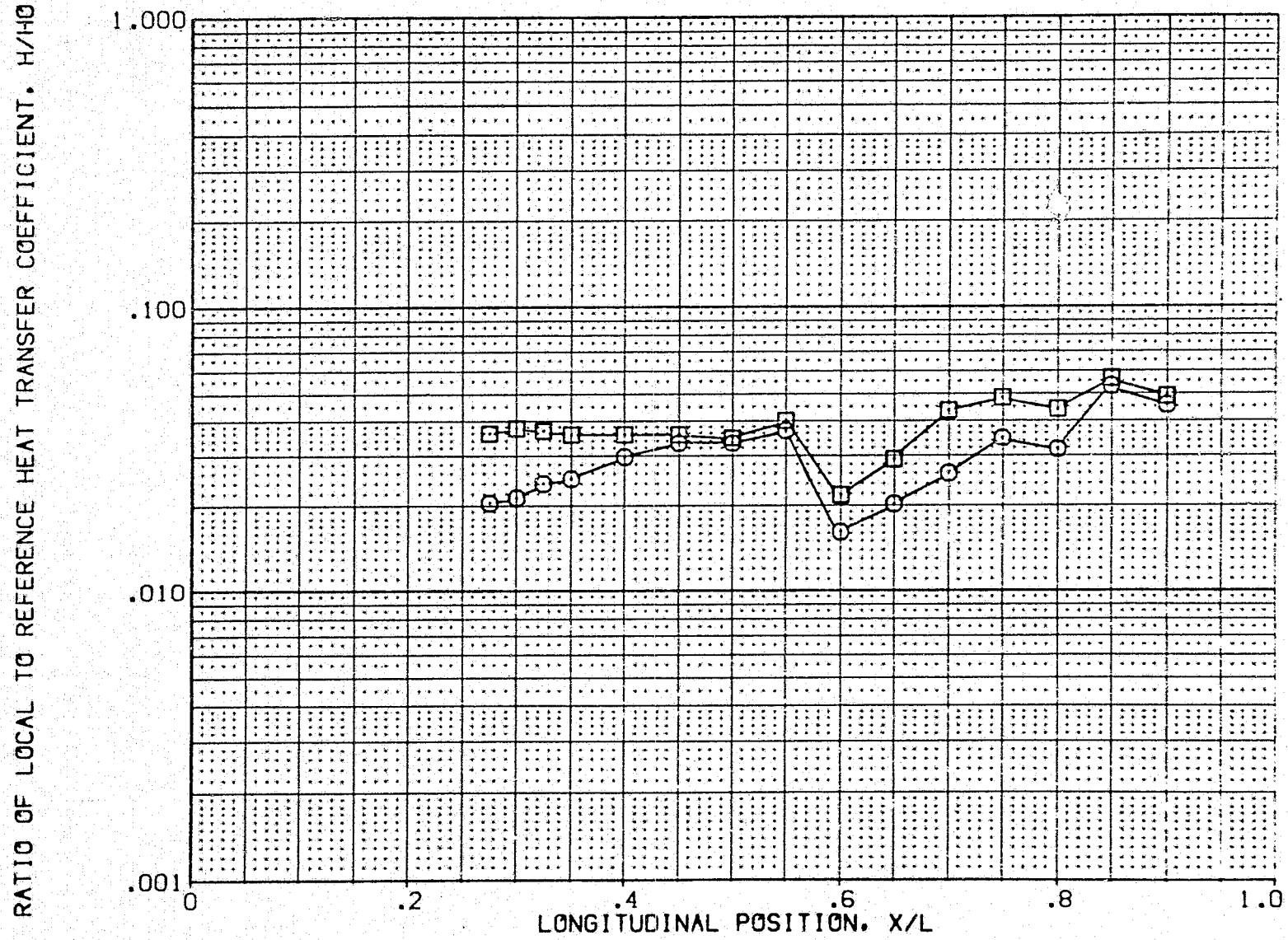


FIG.16 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 7.300 HAW/HT= .900 THETA = 112.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENTO8)	○	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	3.700
(RENT10)	□	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	7.000

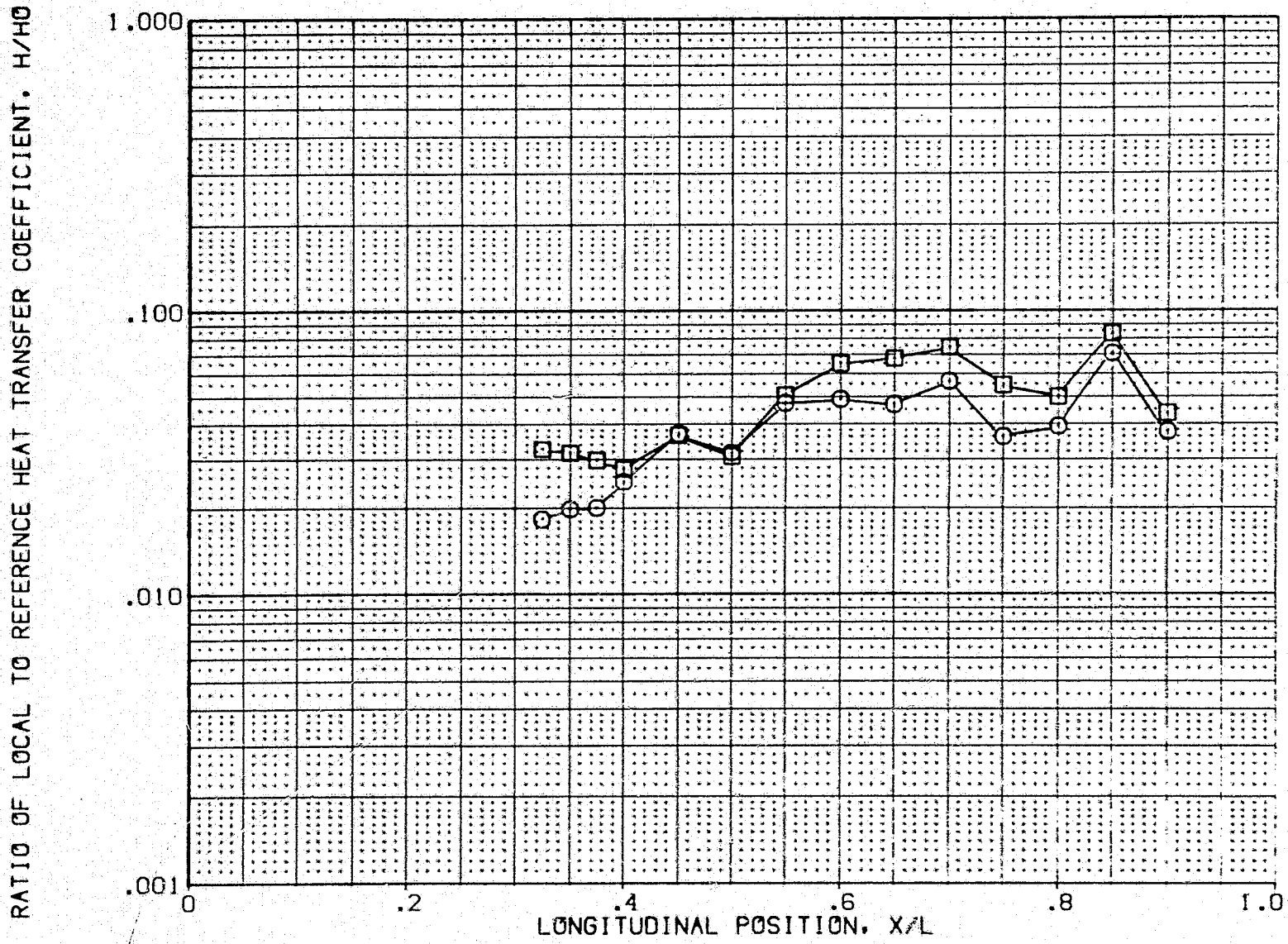


FIG.16 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 7.300 HAW/HT= .900 THETA = 135.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT08)	○	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	3.700
(RENT10)	□	ARC 3.5-185 IH20 01+T15	EXTERNAL TANK	.000	.000	7.300	7.000

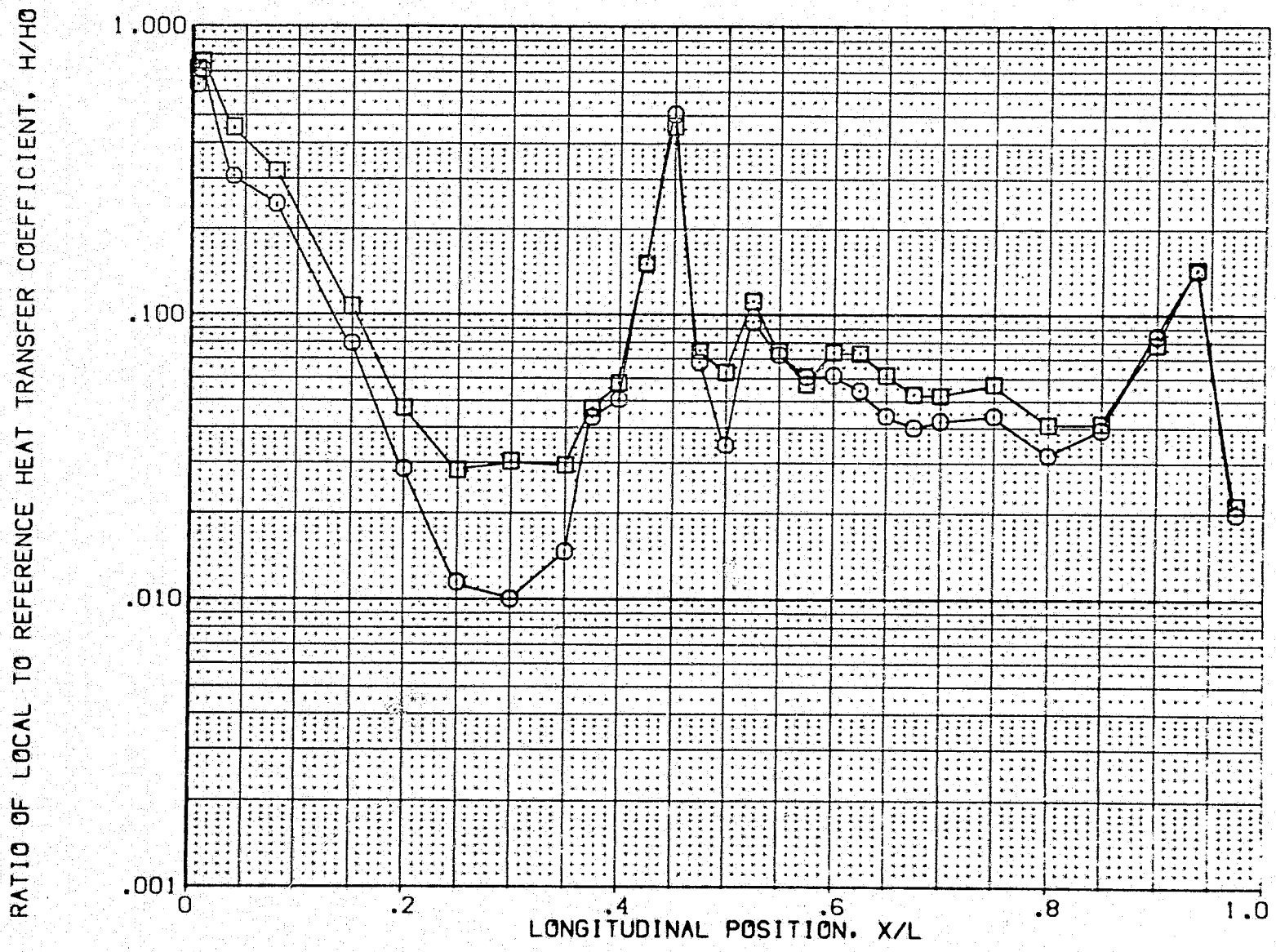


FIG.16 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 7.300 HAW/HT= .900 THETA = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENA08)	○	ARC 3.5-185 IH20 01+T15	ORB PHI=0.0	.000	.000	7.300	3.700
(RENA10)	□	ARC 3.5-185 IH20 01+T15	ORB PHI=0.0	.000	.000	7.300	7.000

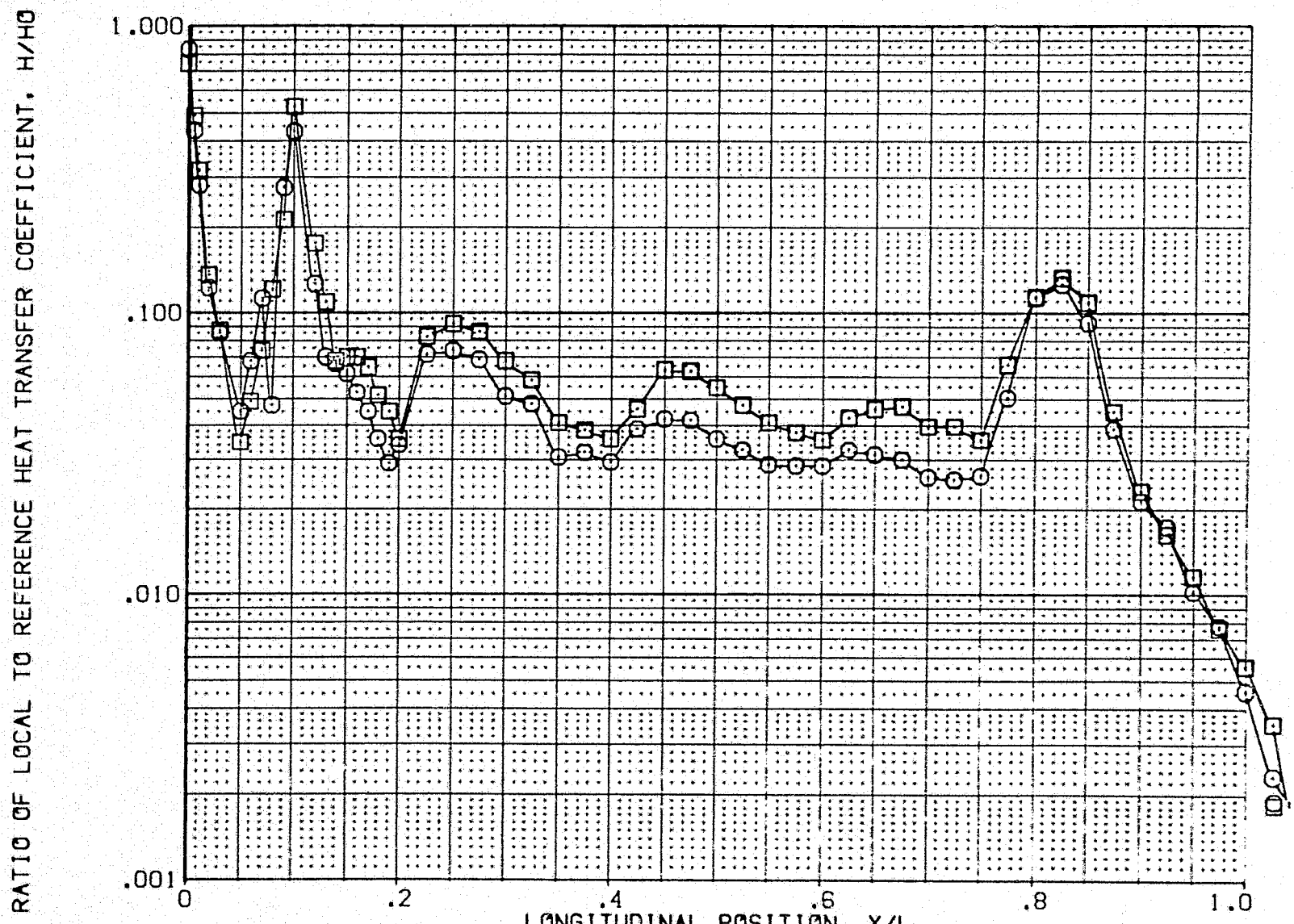


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 PHI = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENC08) ○	ARC 3.5-185 IH20 01+T15	ORB Y=0.875	.000	.000	7.300	3.700
(RENC10) □	ARC 3.5-185 IH20 01+T15	ORB Y=0.875	.000	.000	7.300	7.000

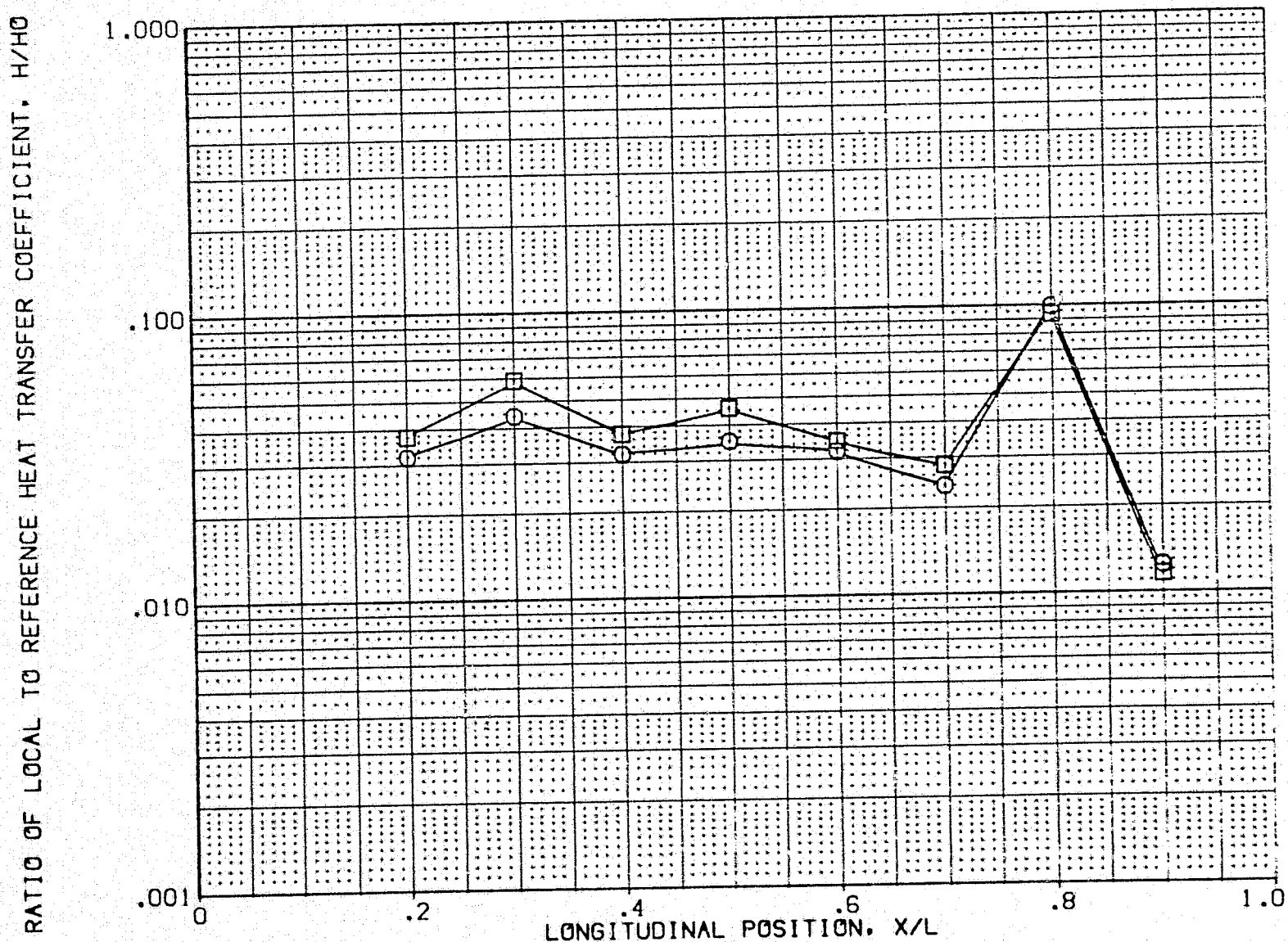


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 Y = .875

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN#08) ○	ARC 3.5-185 IH20 01+T15	ORB Z=7.525	.000	.000	7.300	3.700
(REN#10) □	ARC 3.5-185 IH20 01+T15	ORB Z=7.525	.000	.000	7.300	7.000

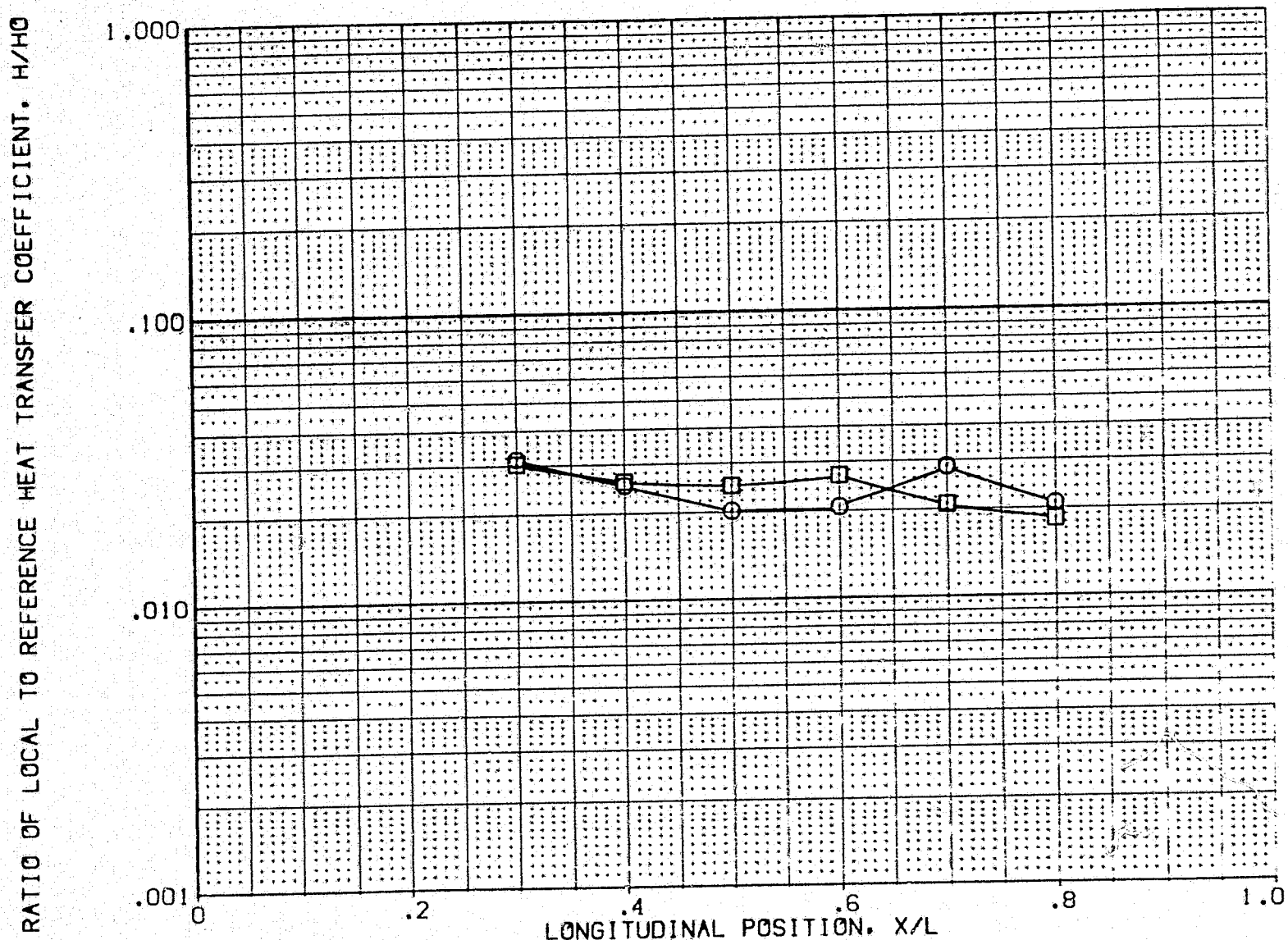


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 Z = 7.525

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN108) ○	ARC 3.5-185 IH20 01+T15	ORB WINDOWS	.000	.000	7.300	3.700
(REN110) □	ARC 3.5-185 IH20 01+T15	ORB WINDOWS	.000	.000	7.300	7.000

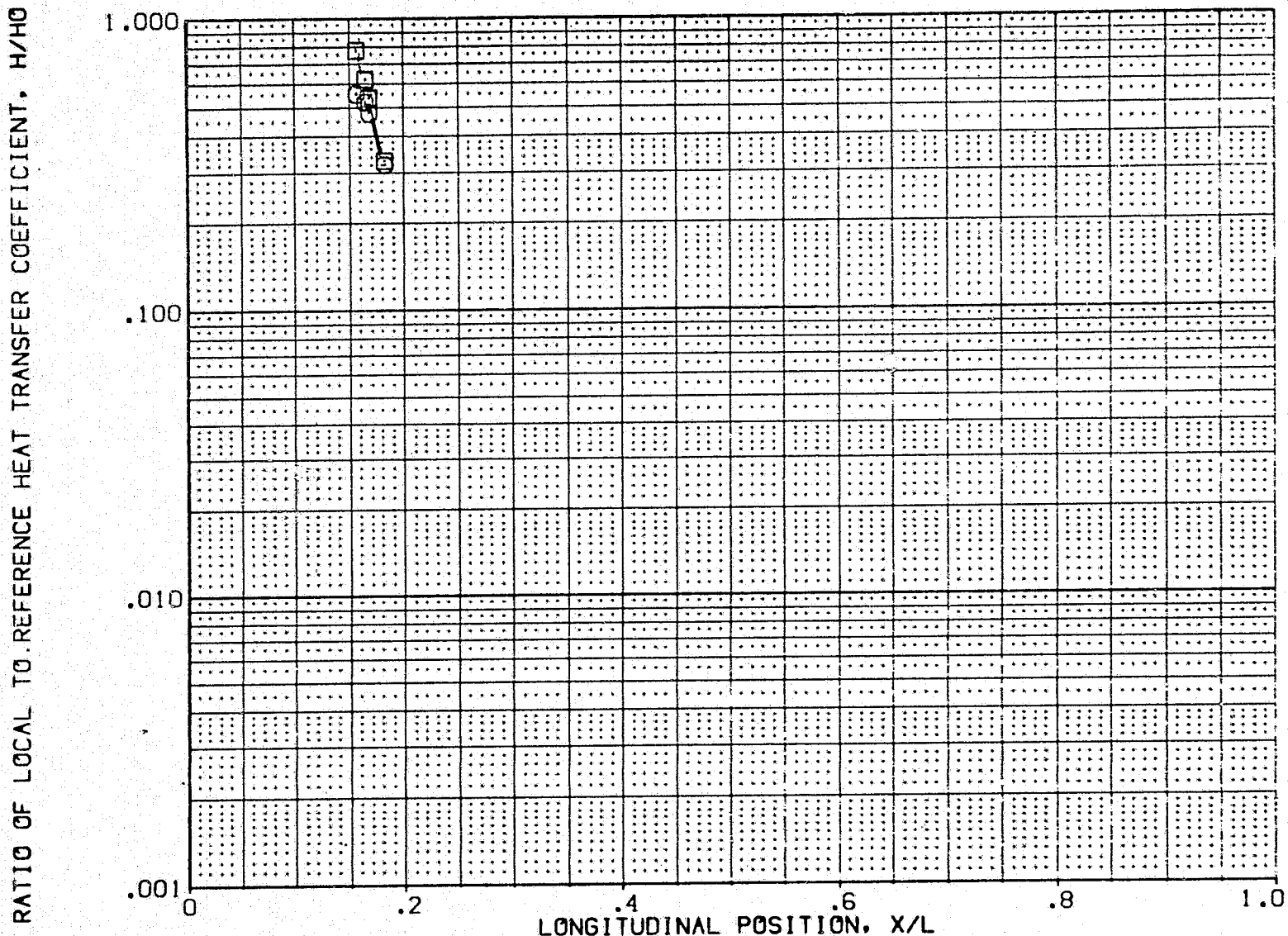


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 Z = 7.910

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN108) ○	ARC 3.5-185 IH20 01+TIS	ORB WINDOWS	.000	.000	7.300	3.700
(REN110) □	ARC 3.5-185 IH20 01+TIS	ORB WINDOWS	.000	.000	7.300	7.000

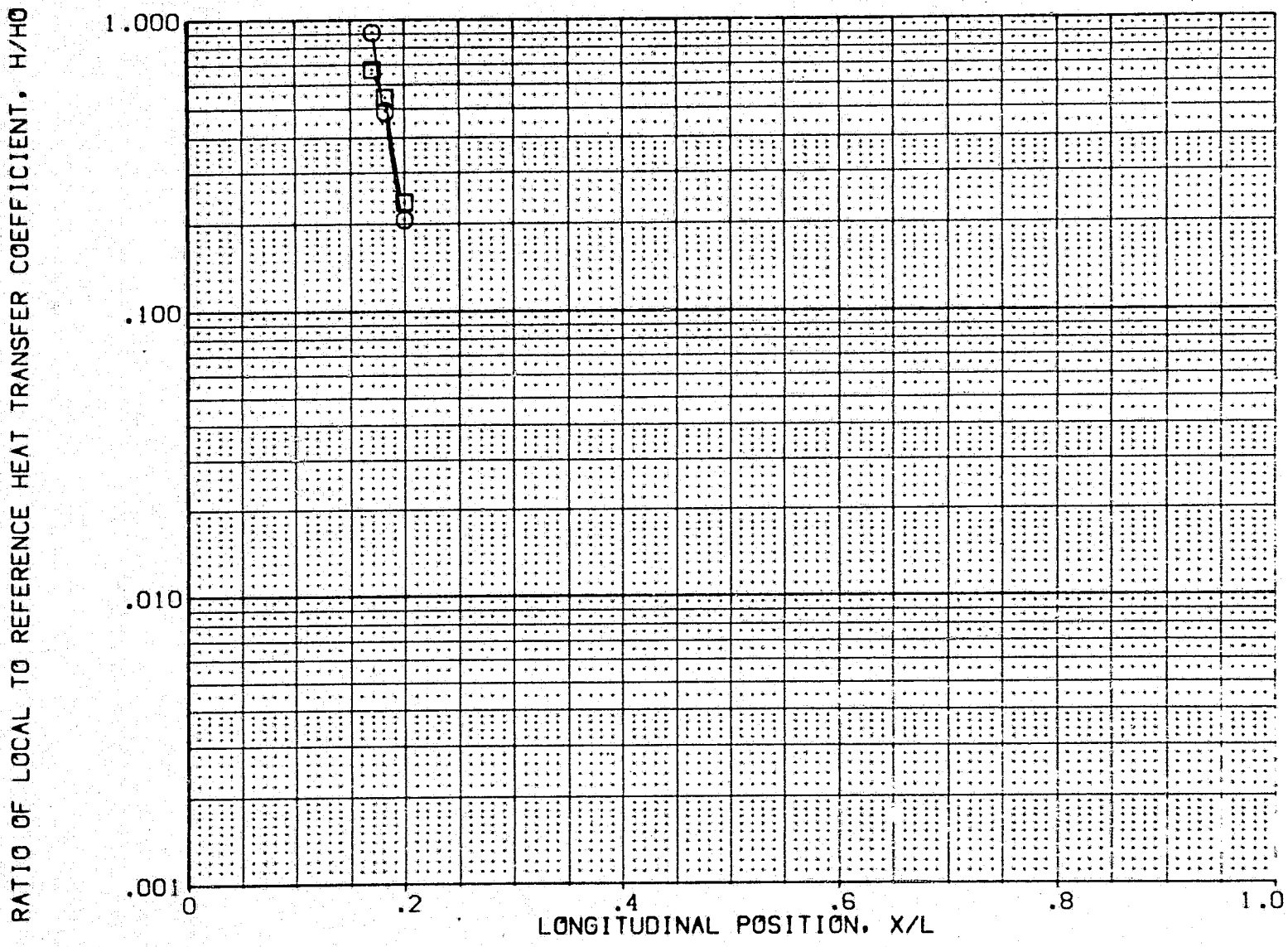


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 Z = 8.137

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN108)	○	ARC 3.5-185 IH20 01+T15	ORB WINDOWS	.000	.000	7.300	3.700
(REN110)	□	ARC 3.5-185 IH20 01+T15	ORB WINDOWS	.000	.000	7.300	7.000

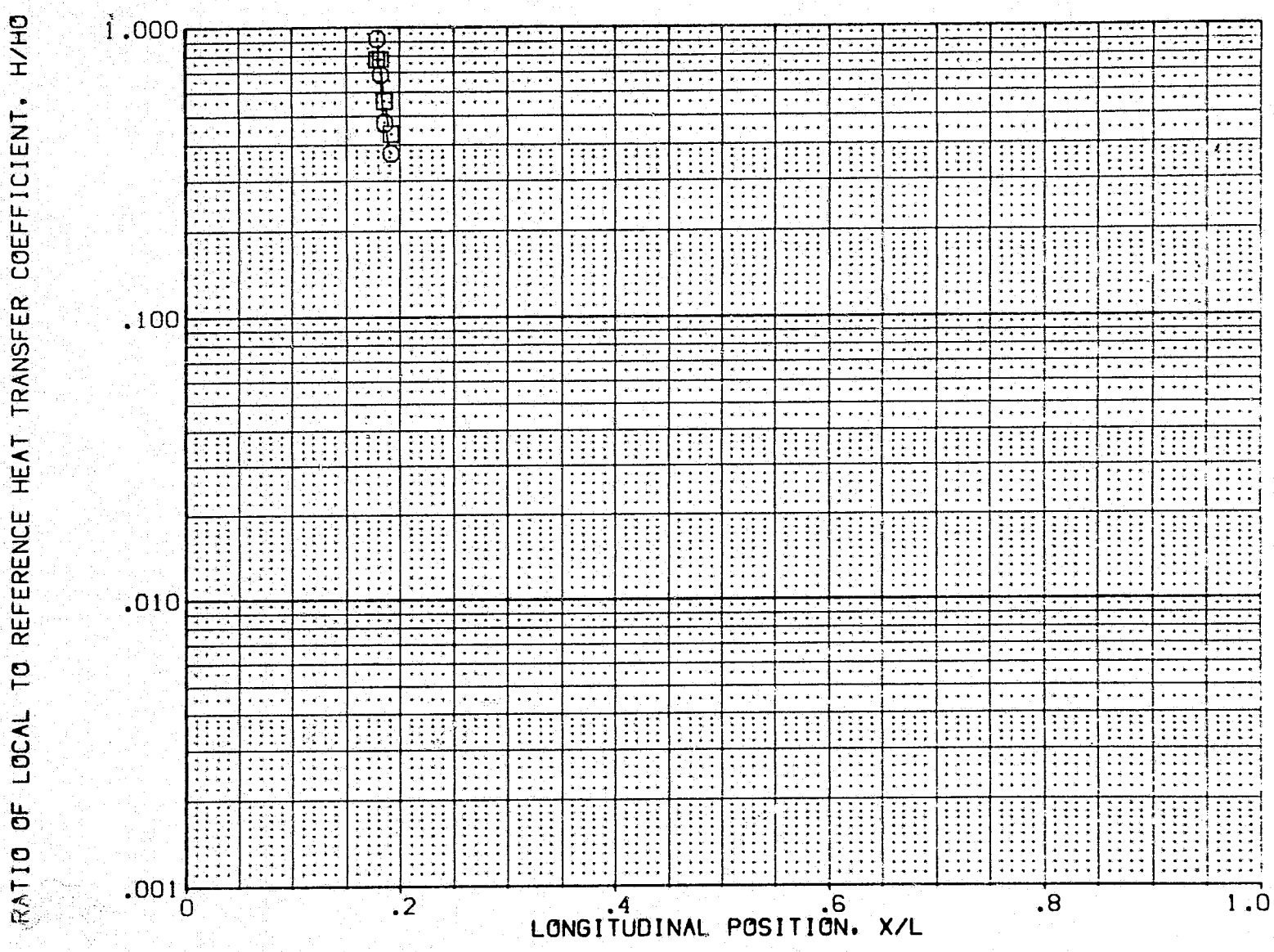


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 Z = 8.365

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENM08)	○	ARC 3.5-185 1H20 01+T15	ORB Z=8.295	.000	.000	7.300	3.700
(RENM10)	□	ARC 3.5-185 1H20 01+T15	ORB Z=8.295	.000	.000	7.300	7.000

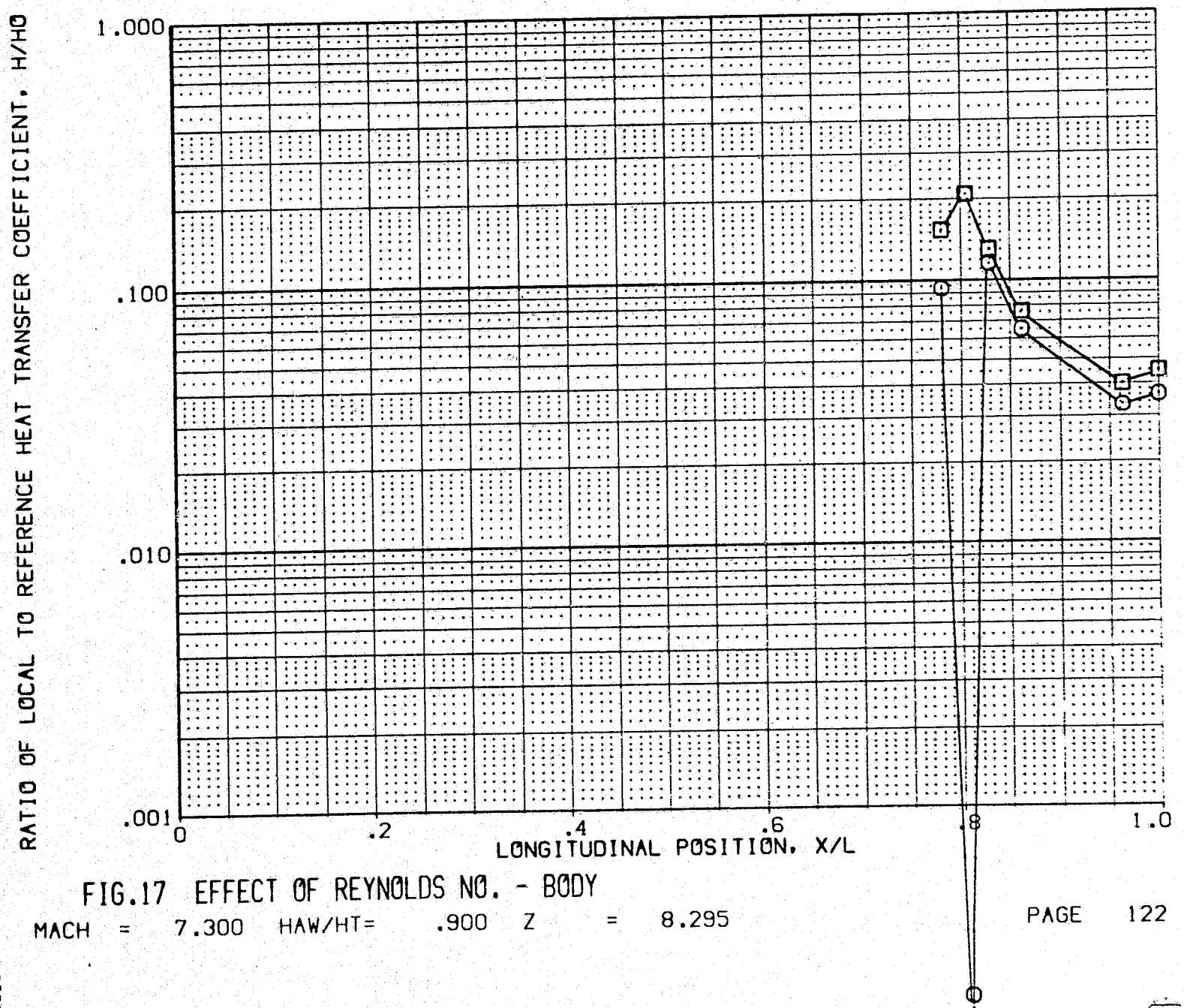


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 Z = 8.295

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENJ08)	○	ARC 3.5-185 IH20 01+T15	ORB Z=8.379	.000	.000	7.300	3.700
(RENJ10)	□	ARC 3.5-185 IH20 01+T15	ORB Z=8.379	.000	.000	7.300	7.000

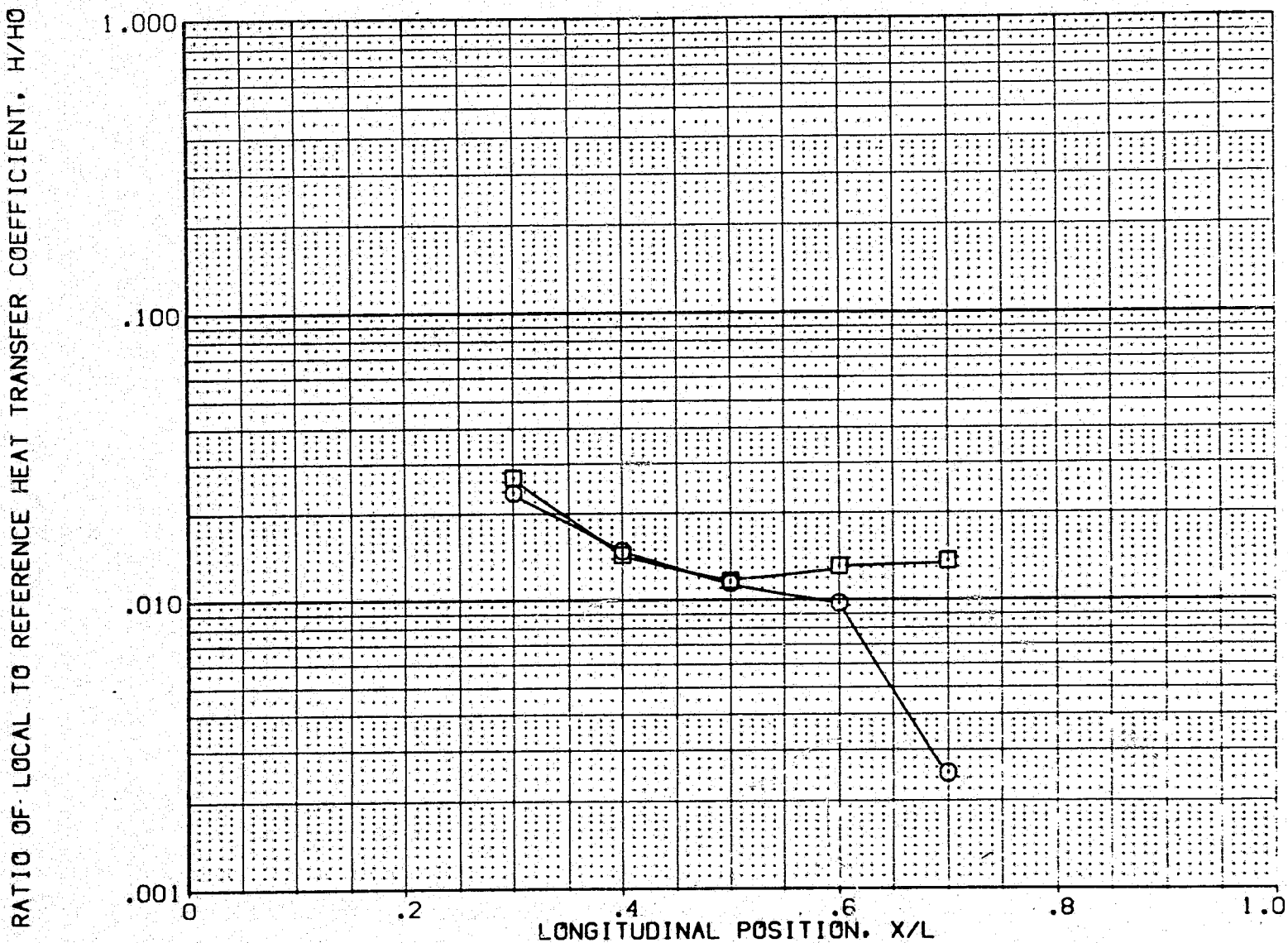


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 Z = 8.379

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENOO8)	○	ARC 3.5-185 IH20 01+T15	OMS TOP	.000	.000	7.300	3.700
(RENO10)	□	ARC 3.5-185 IH20 01+T15	OMS TOP	.000	.000	7.300	7.000

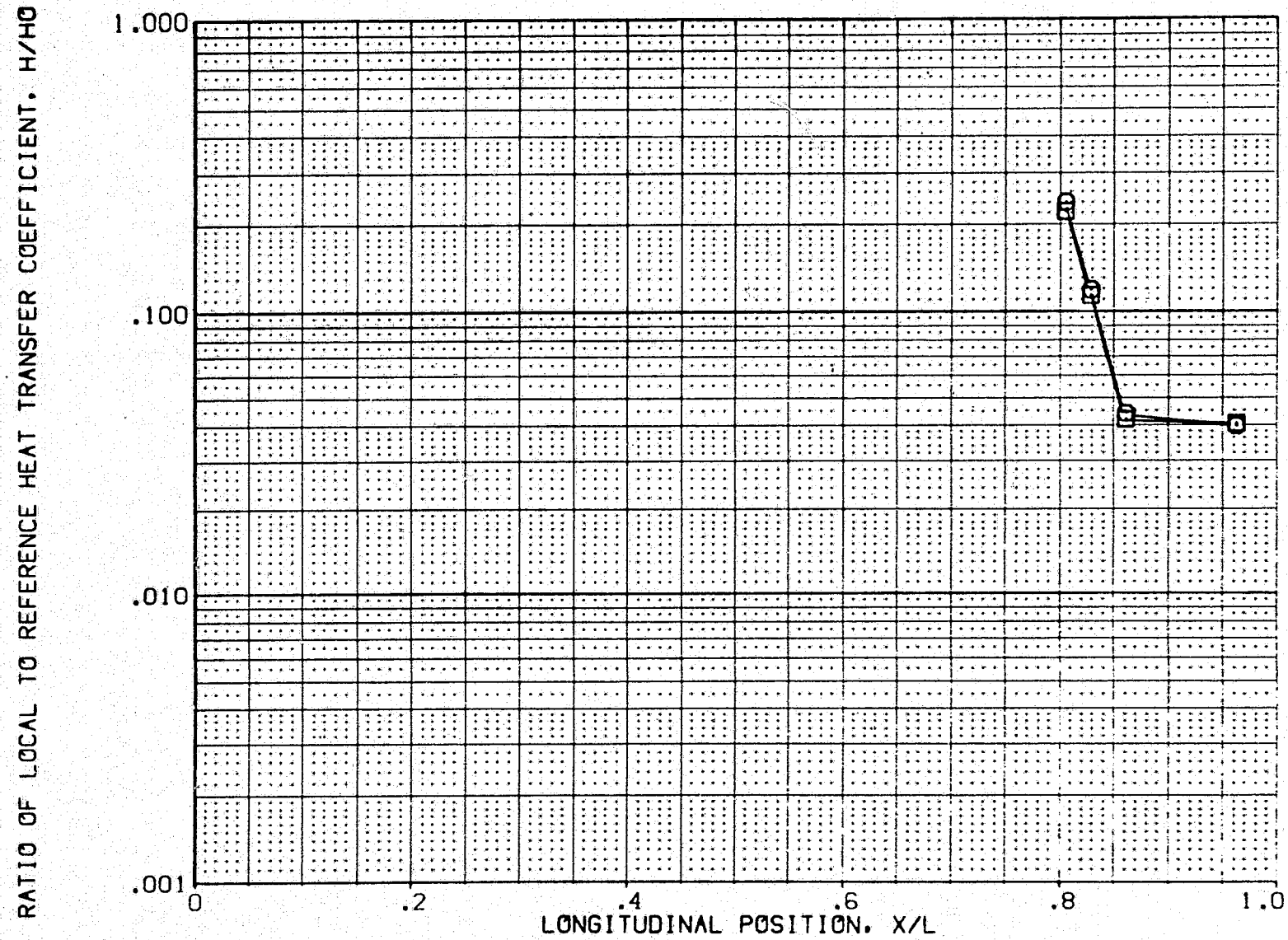


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 Y = 1.662

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENK08)	○	ARC 3.5-185 IH20 01+T15	ORB PHI=180	.000	.000	7.300	3.700
(RENK10)	□	ARC 3.5-185 IH20 01+T15	ORB PHI=180	.000	.000	7.300	7.000

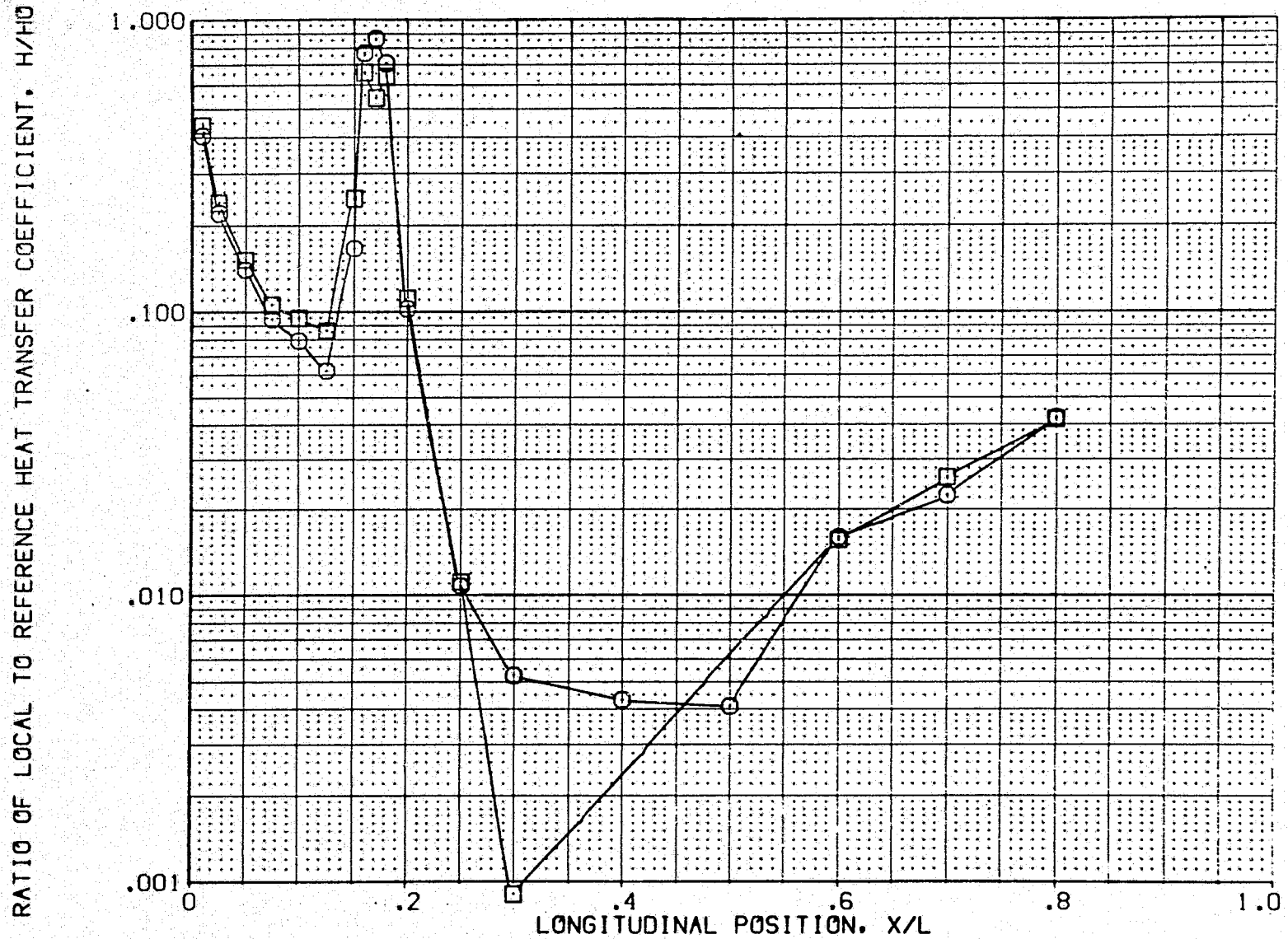


FIG.17 EFFECT OF REYNOLDS NO. - BODY

MACH = 7.300 HAW/HT= .900 PHI = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW08) ○	ARC 3.5-185 IH20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	3.700
(RENW10) □	ARC 3.5-185 IH20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	7.000

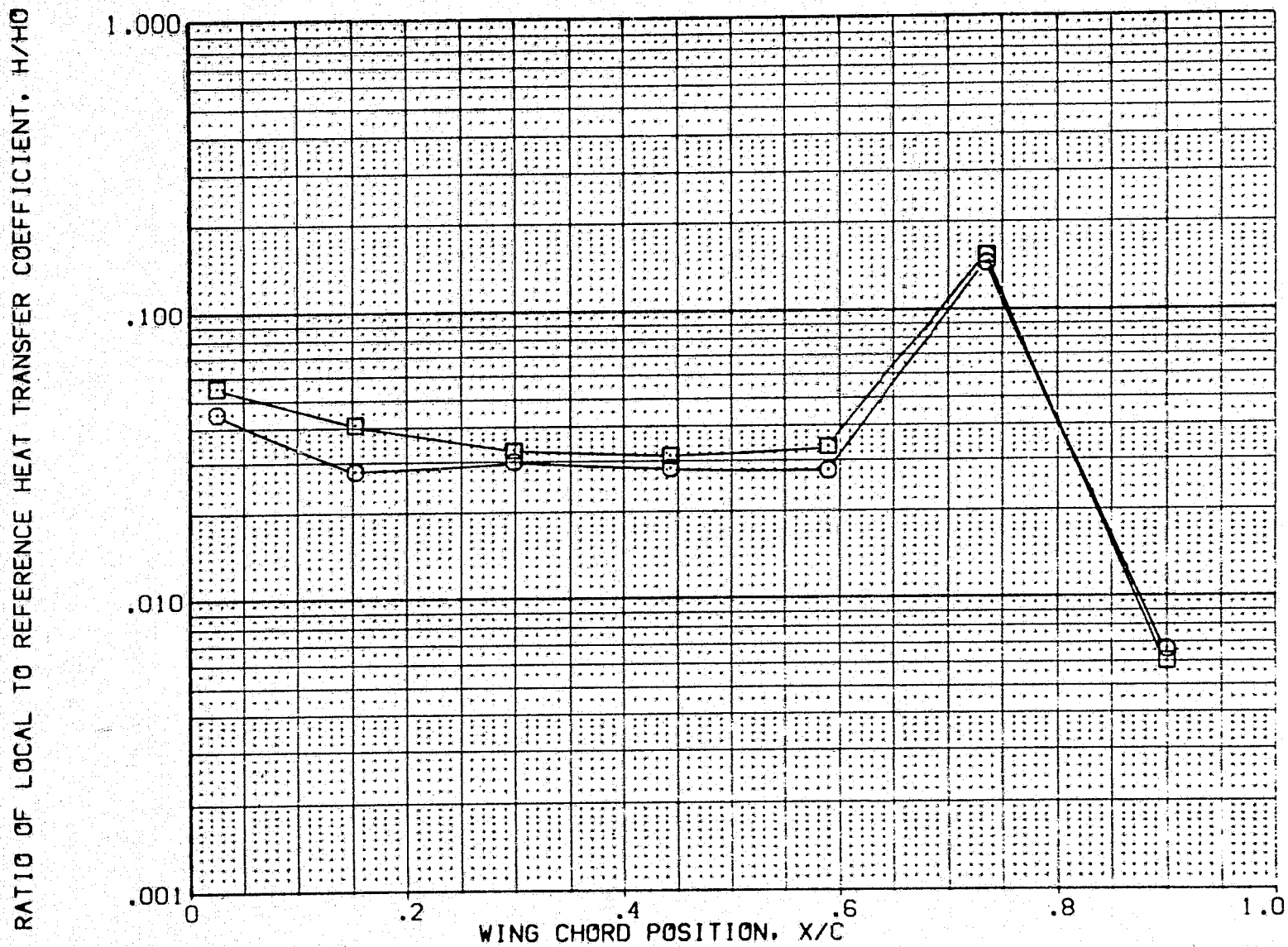


FIG.18 EFFECT OF REYNOLDS NO. - WING

MACH = 7.300 HAW/HT= .900 2Y/B = .250

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV08)	○	ARC 3.5-185 IH20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	3.700
(RENV10)	□	ARC 3.5-185 IH20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	7.000

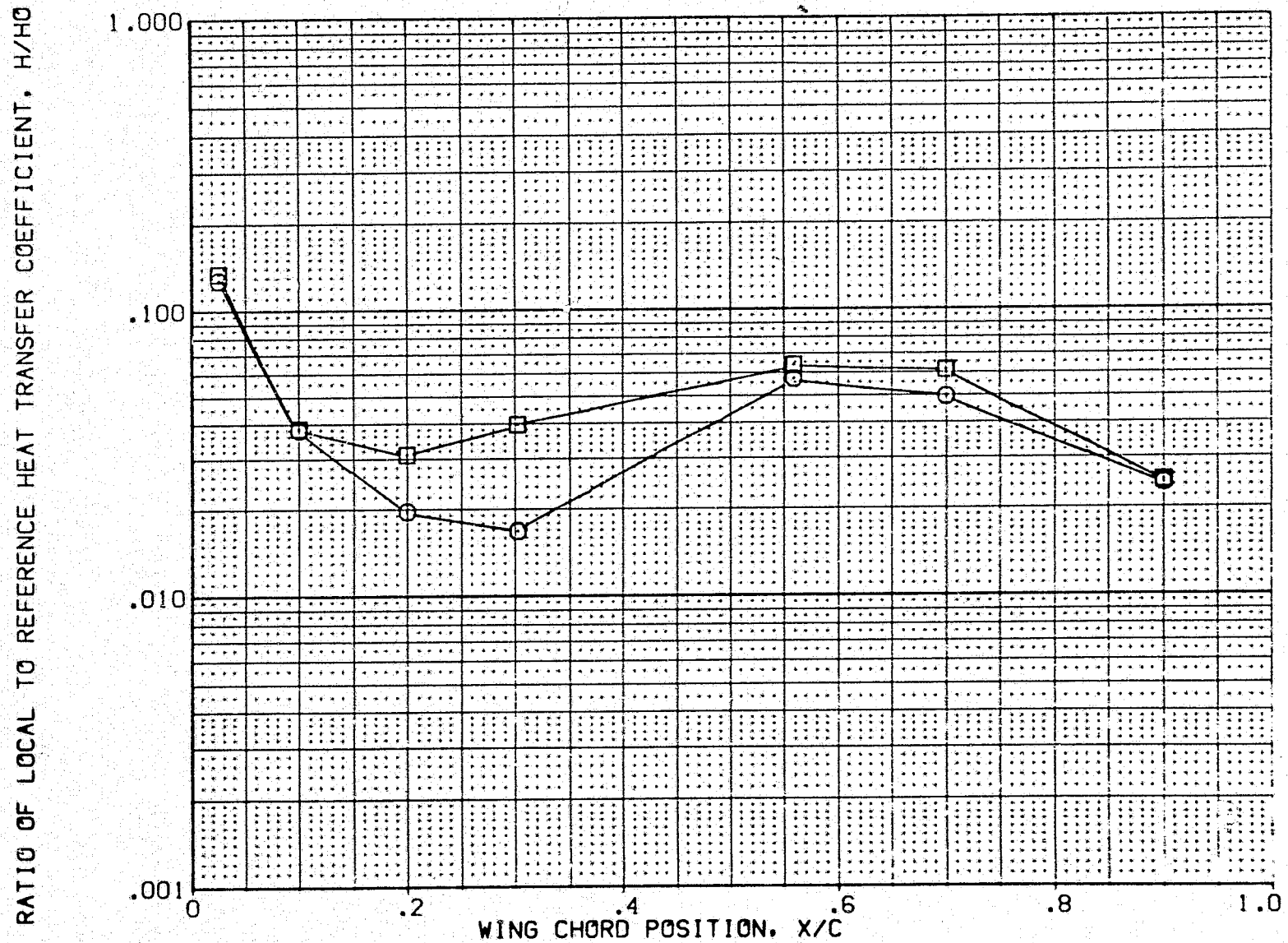


FIG.18 EFFECT OF REYNOLDS NO. - WING

MACH = 7.300 HAW/HT= .900 2Y/B = .400

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW08)	ARC 3.5-185 1H20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	3.700
(RENW10)	ARC 3.5-185 1H20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	7.000

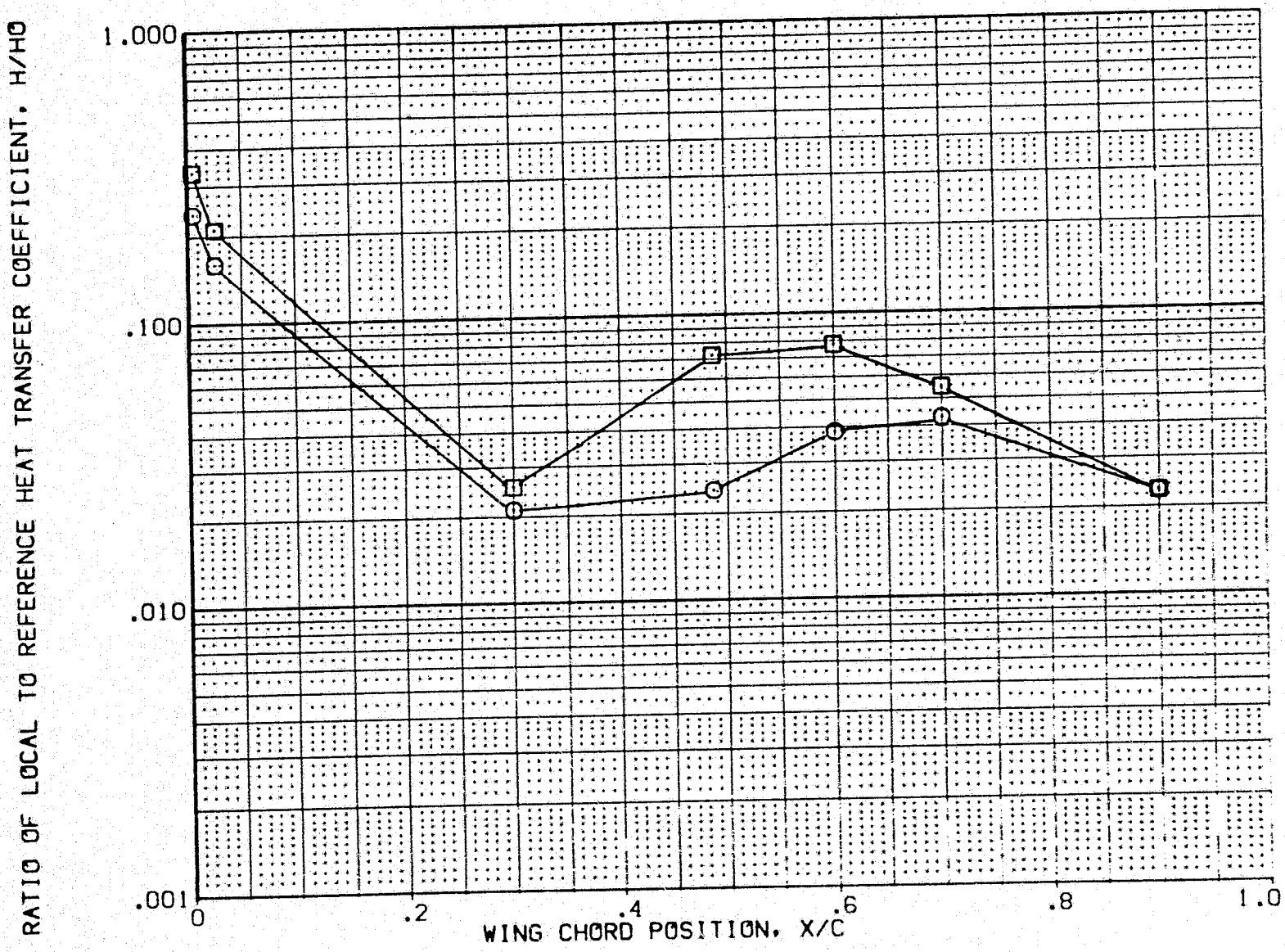


FIG.18 EFFECT OF REYNOLDS NO. - WING

MACH = 7.300 HAW/HT= .900 2Y/B = .500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW08)	○	ARC 3.5-18S 1H20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	3.700
(RENW10)	□	ARC 3.5-18S 1H20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	7.000

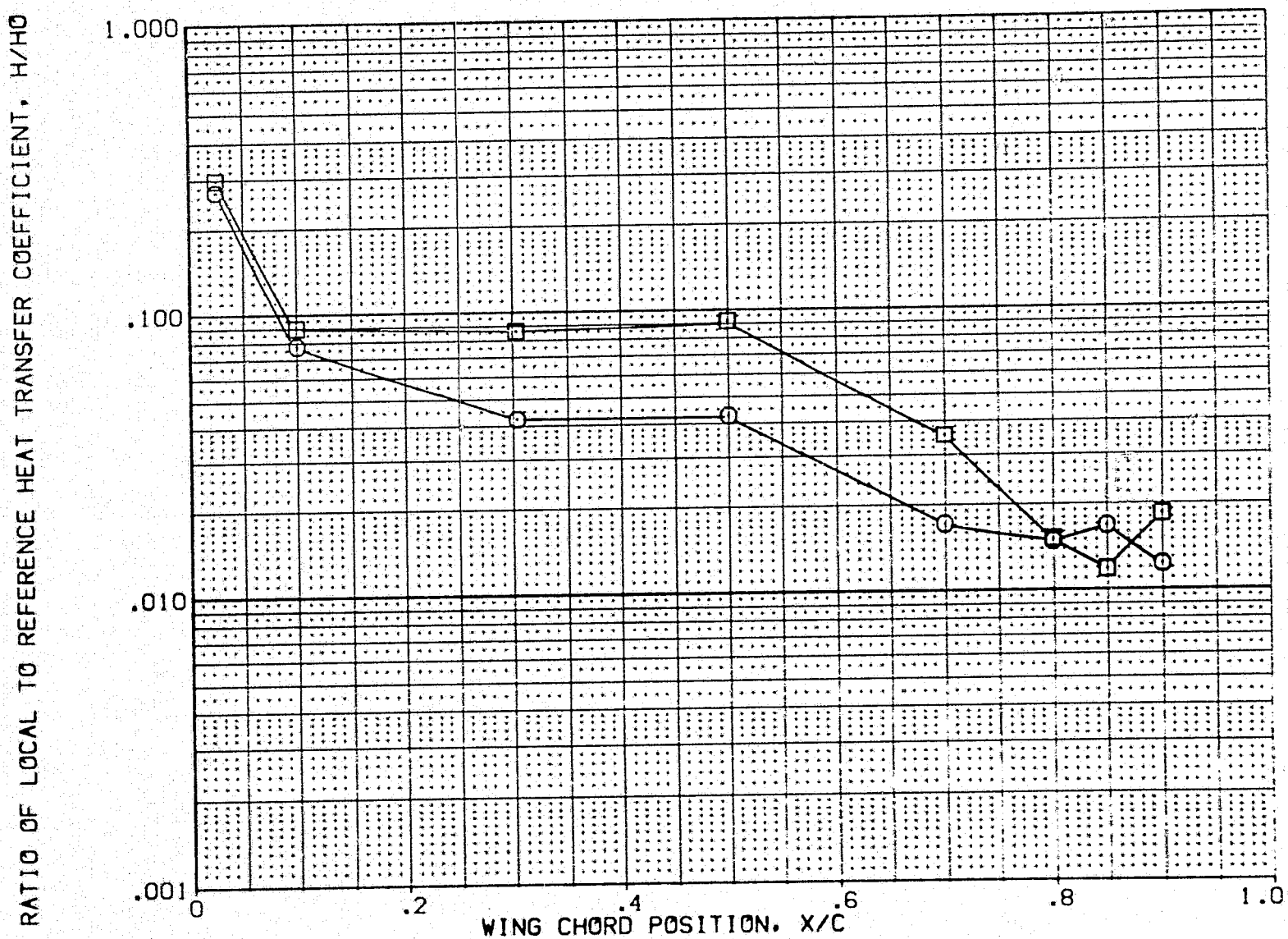


FIG.18 EFFECT OF REYNOLDS NO. - WING

MACH = 7.300 HAW/HT= .900 2Y/B = .750

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV08) ○	ARC 3.5-185 IH20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	3.700
(RENV10) □	ARC 3.5-185 IH20 01+T15	WING BOTTOM SURF.	.000	.000	7.300	7.000

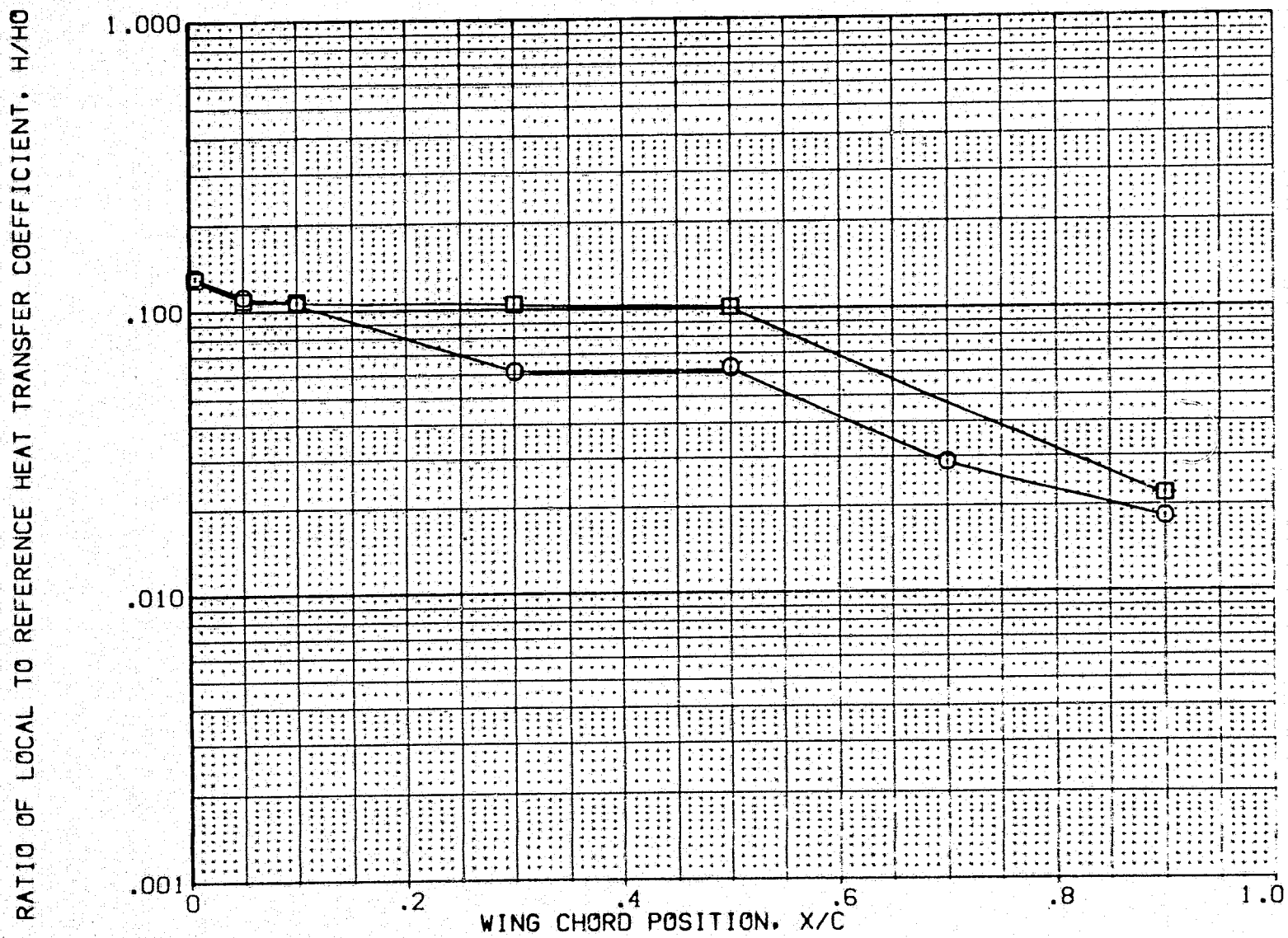


FIG.18 EFFECT OF REYNOLDS NO. - WING

MACH = 7.300 HAW/HT= .900 2Y/B = .950

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX08) ○	ARC 3.5-18S 1H20 01+T15	WING UPPER SURF.	.000	.000	7.300	3.700
(RENX10) □	ARC 3.5-18S 1H20 01+T15	WING UPPER SURF.	.000	.000	7.300	7.000

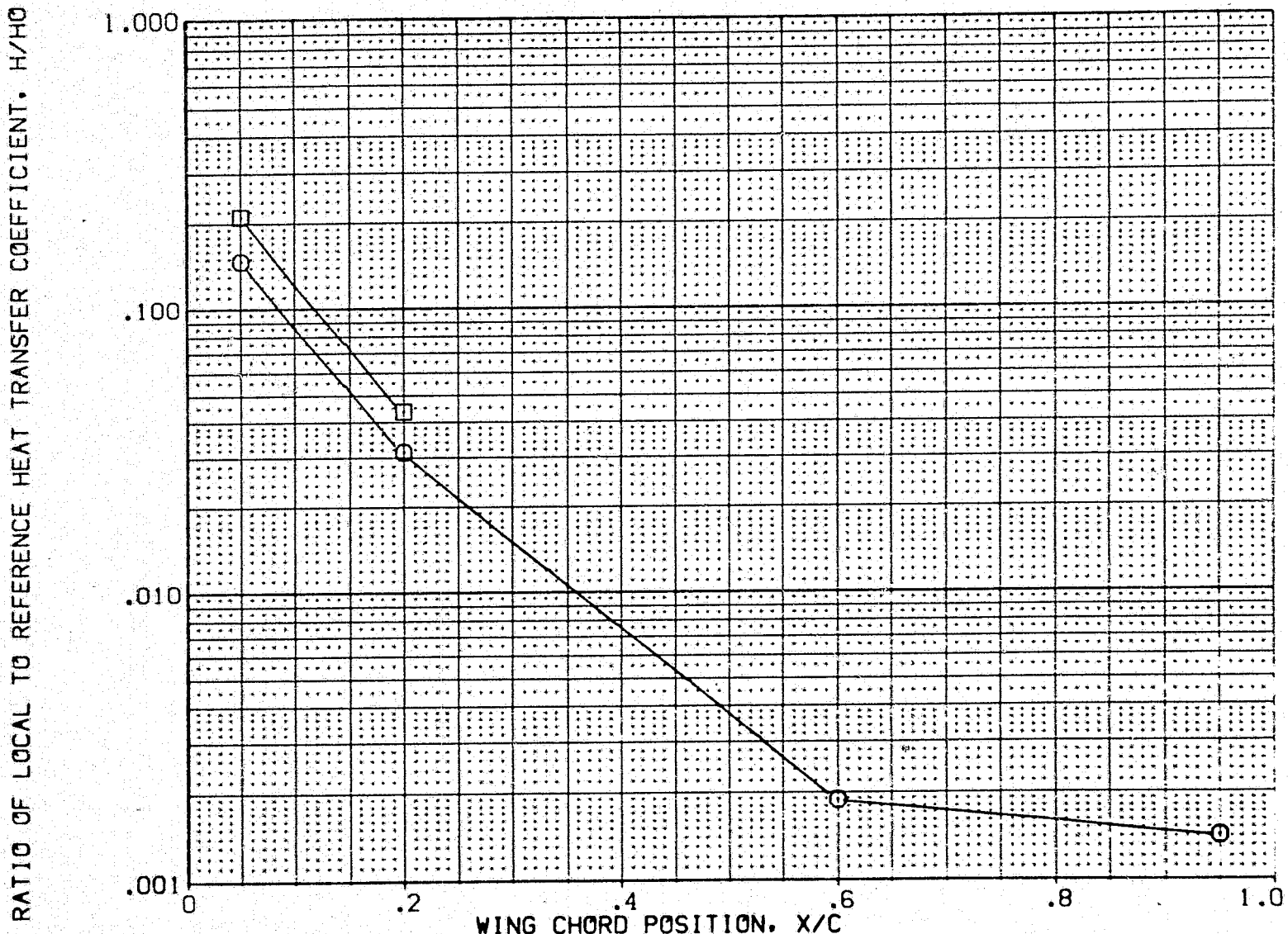


FIG.18 EFFECT OF REYNOLDS NO. - WING

MACH = 7.300 HAW/HT= .900 2Y/B = .400

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX08) ○	ARC 3.5-185 IH20 01+T15	WING UPPER SURF.	.000	.000	7.300	3.700
(RENX10) □	ARC 3.5-185 IH20 01+T15	WING UPPER SURF.	.000	.000	7.300	7.000

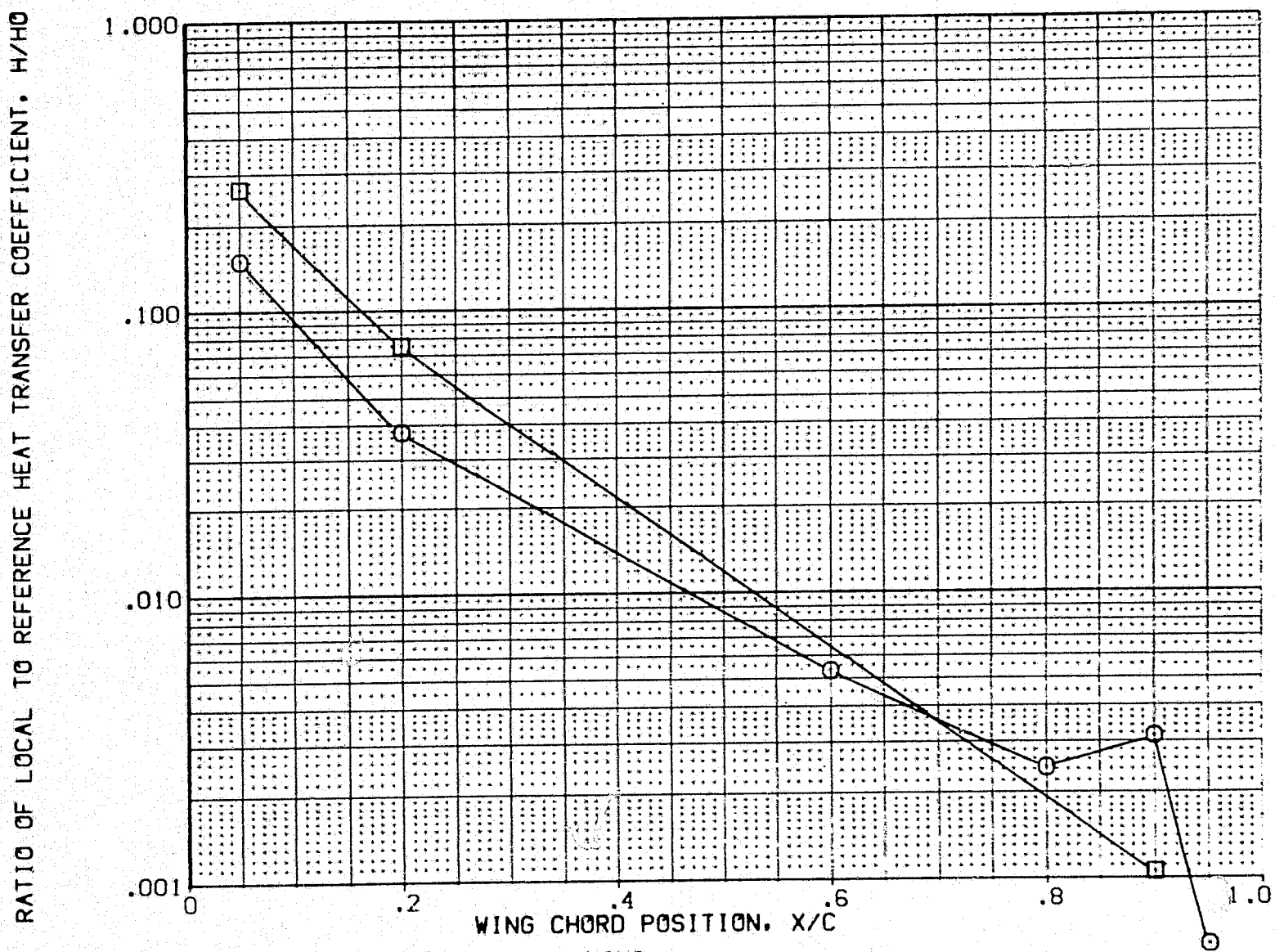


FIG.18 EFFECT OF REYNOLDS NO. - WING

MACH = 7.300 HAW/HT= .900 2Y/B = .600

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX08) ○	ARC 3.5-185 IH20 01+T15	WING UPPER SURF.	.000	.000	7.300	3.700
(RENX10) □	ARC 3.5-185 IH20 01+T15	WING UPPER SURF.	.000	.000	7.300	7.000

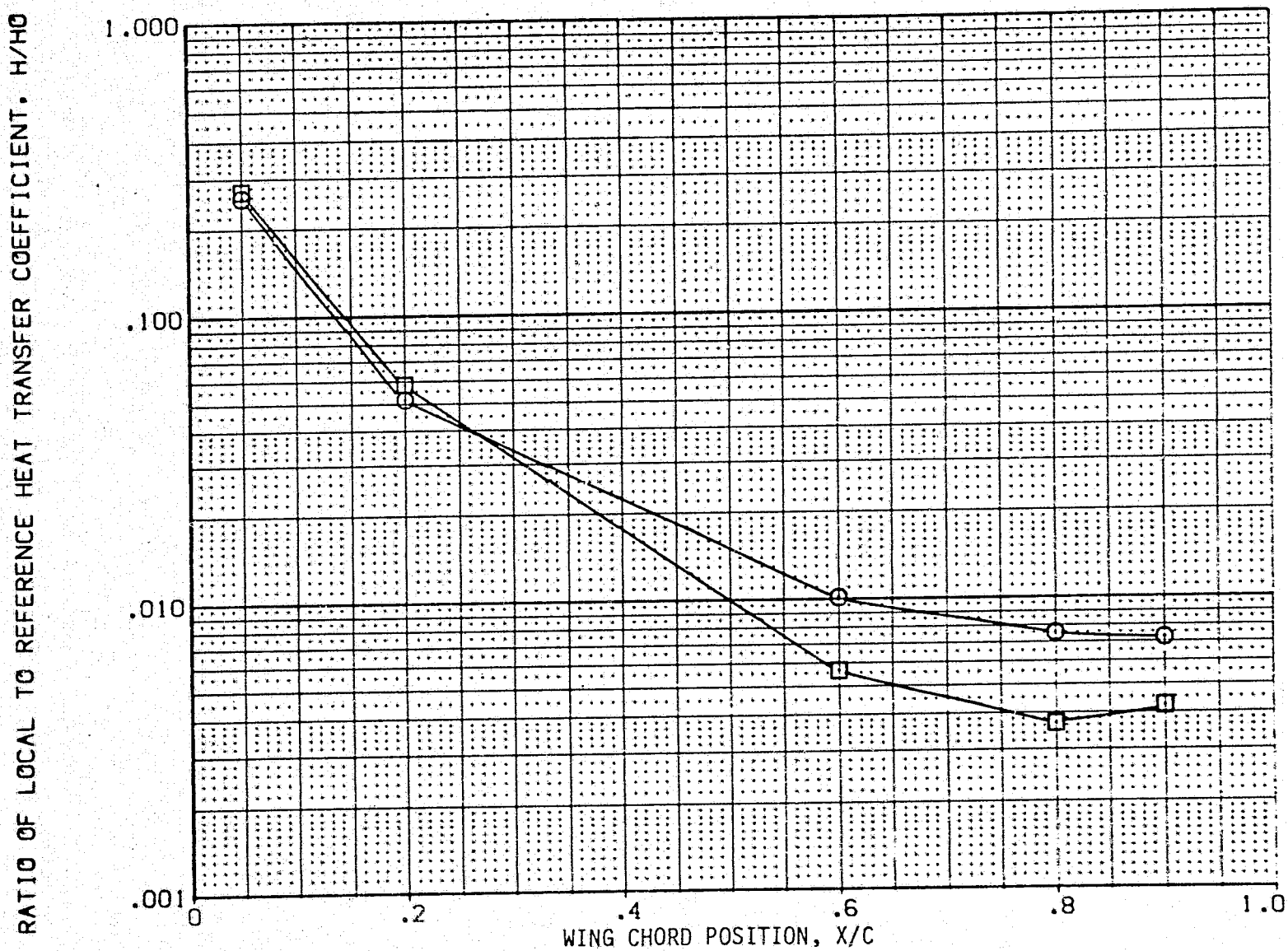


FIG.18 EFFECT OF REYNOLDS NO. - WING

MACH = 7.300 HAW/HT= .900 2Y/B = .800

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV08) ○	ARC 3.5-185 IH20 01+T15	VERTICAL TAIL	.000	.000	7.300	3.700
(RENV10) □	ARC 3.5-185 IH20 01+T15	VERTICAL TAIL	.000	.000	7.300	7.000

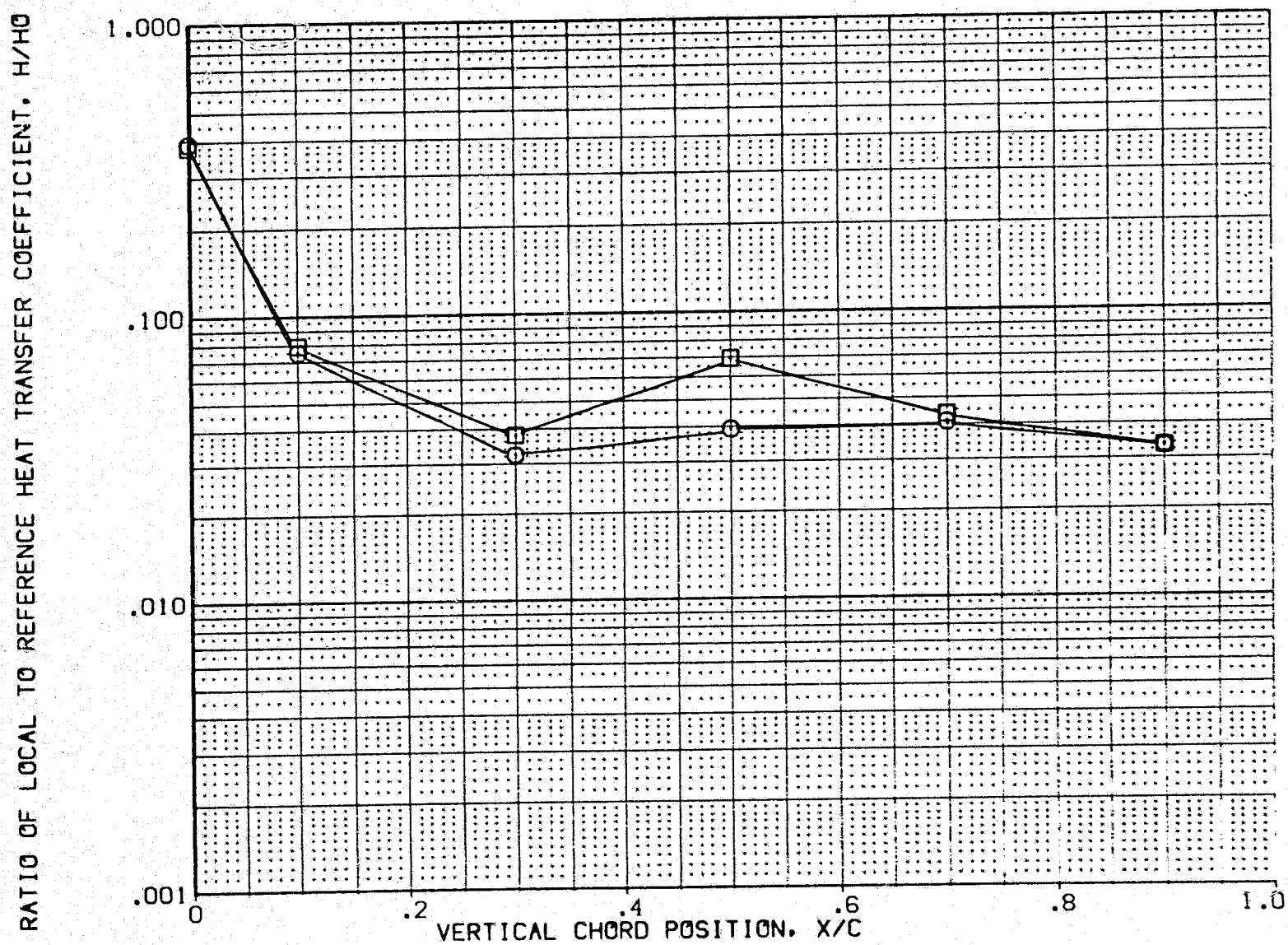


FIG.19 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 7.300 HAW/HT= .900 Z/BV = .299

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV08) ○	ARC 3.5-18S IH20 01+T15	VERTICAL TAIL	.000	.000	7.300	3.700
(RENV10) □	ARC 3.5-18S IH20 01+T15	VERTICAL TAIL	.000	.000	7.300	7.000

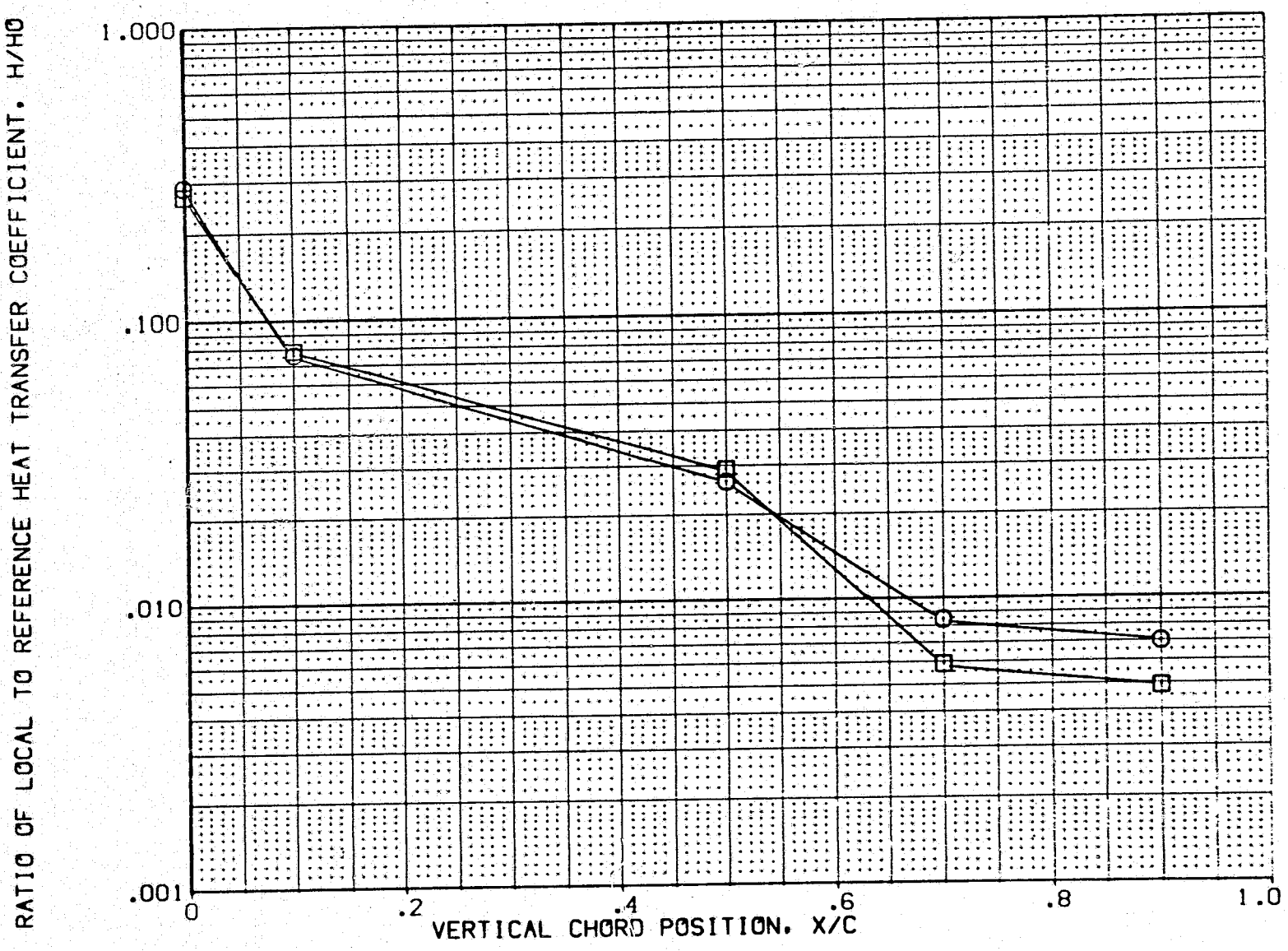


FIG.19 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 7.300 HAW/HT= .900 Z/BV = .532

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENVOB) ○	ARC 3.5-185 1H20 01+T15	VERTICAL TAIL	.000	.000	7.300	3.700
(RENV10) □	ARC 3.5-185 1H20 01+T15	VERTICAL TAIL	.000	.000	7.300	7.000

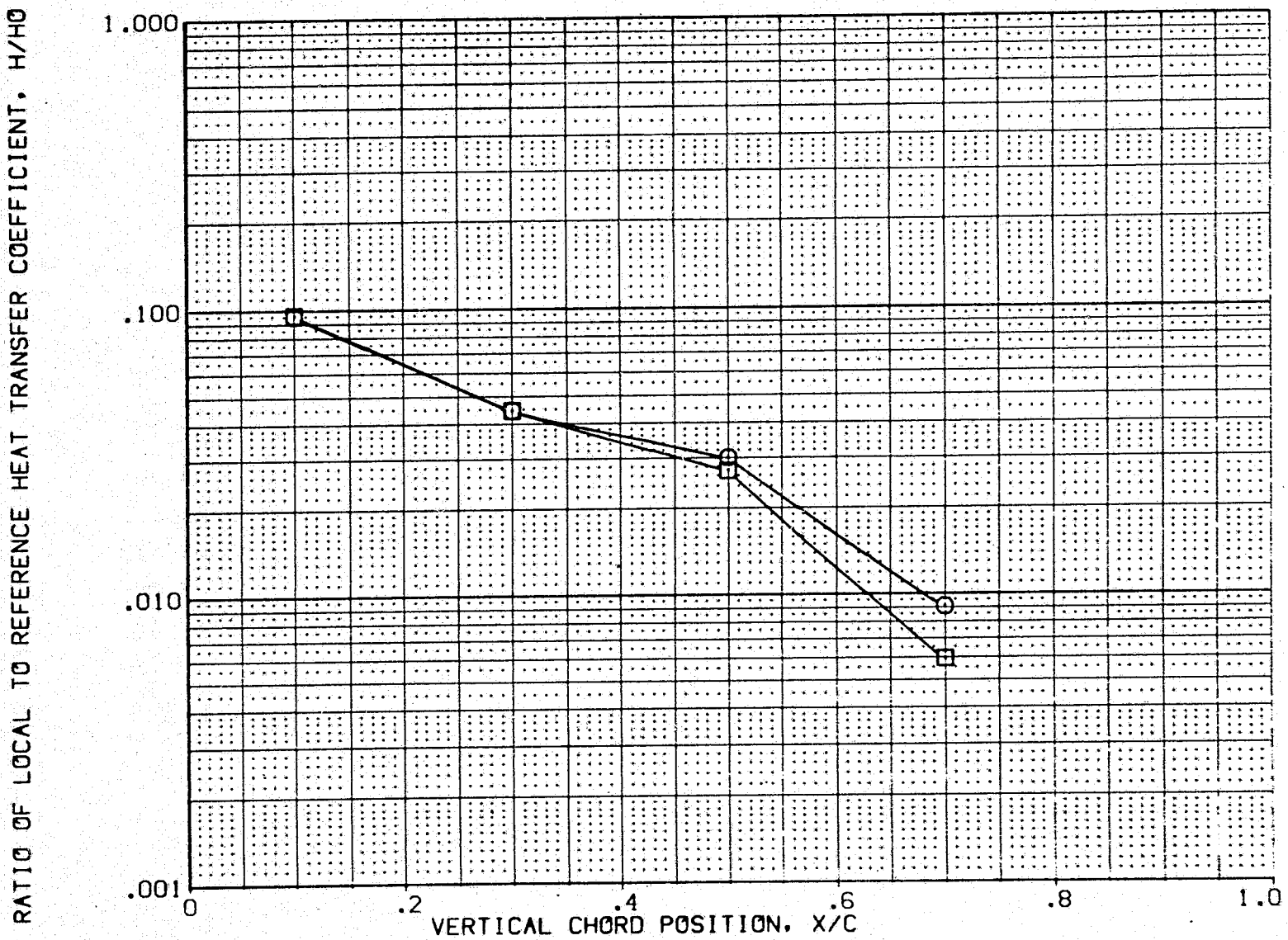


FIG.19 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 7.300 HAW/HT= .900 Z/BV = .765

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV08)	○	ARC 3.5-185 1H20 01+T15	VERTICAL TAIL	.000	.000	7.300	3.700
(RENV10)	□	ARC 3.5-185 1H20 01+T15	VERTICAL TAIL	.000	.000	7.300	7.000

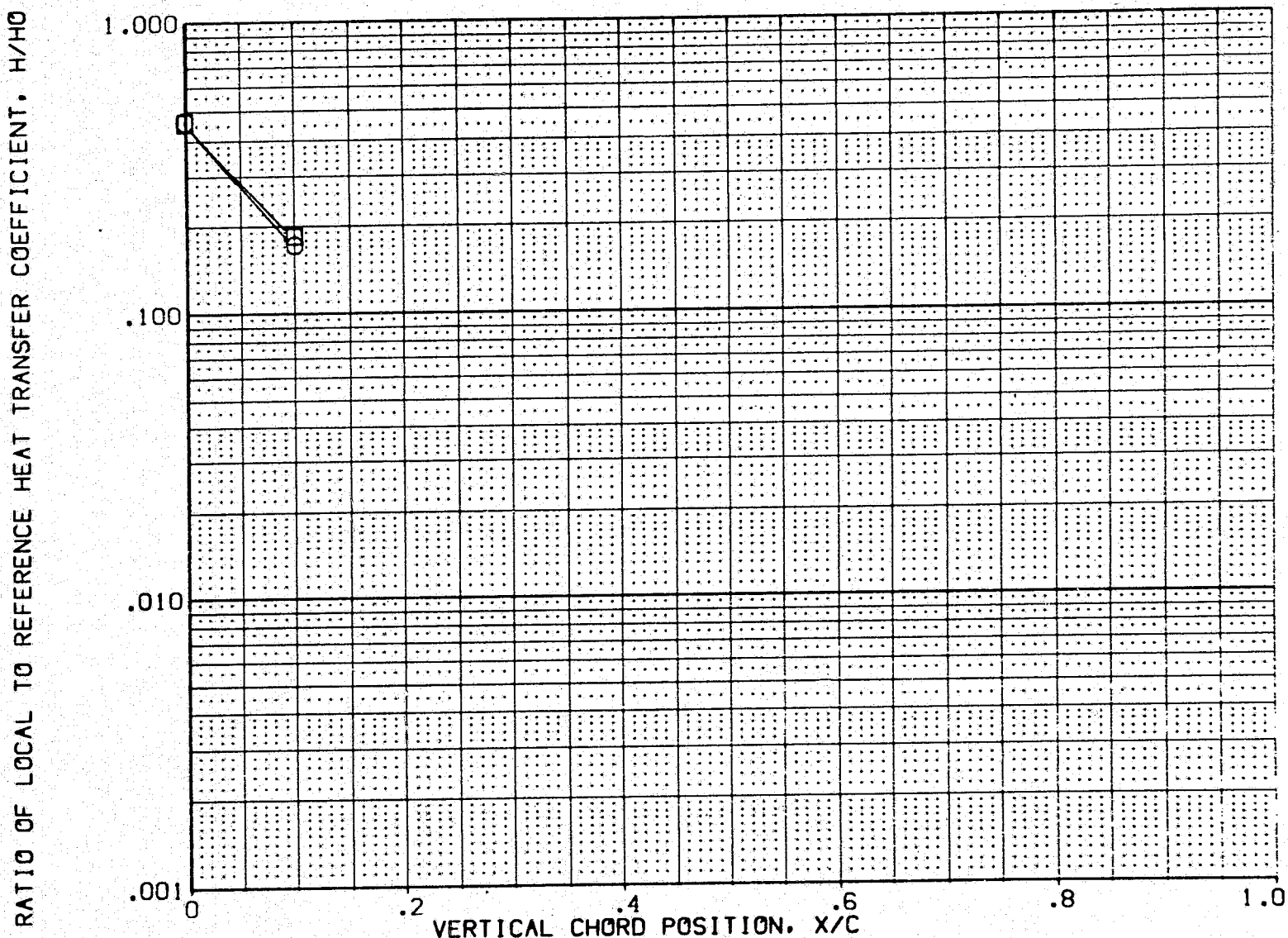


FIG.19 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 7.300 HAW/HT= .900 Z/BV = .905

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV08)	○	ARC 3.5-185 IH20 01+T1S	VERTICAL TAIL	.000	.000	7.300	3.700
(RENV10)	□	ARC 3.5-185 IH20 01+T1S	VERTICAL TAIL	.000	.000	7.300	7.000

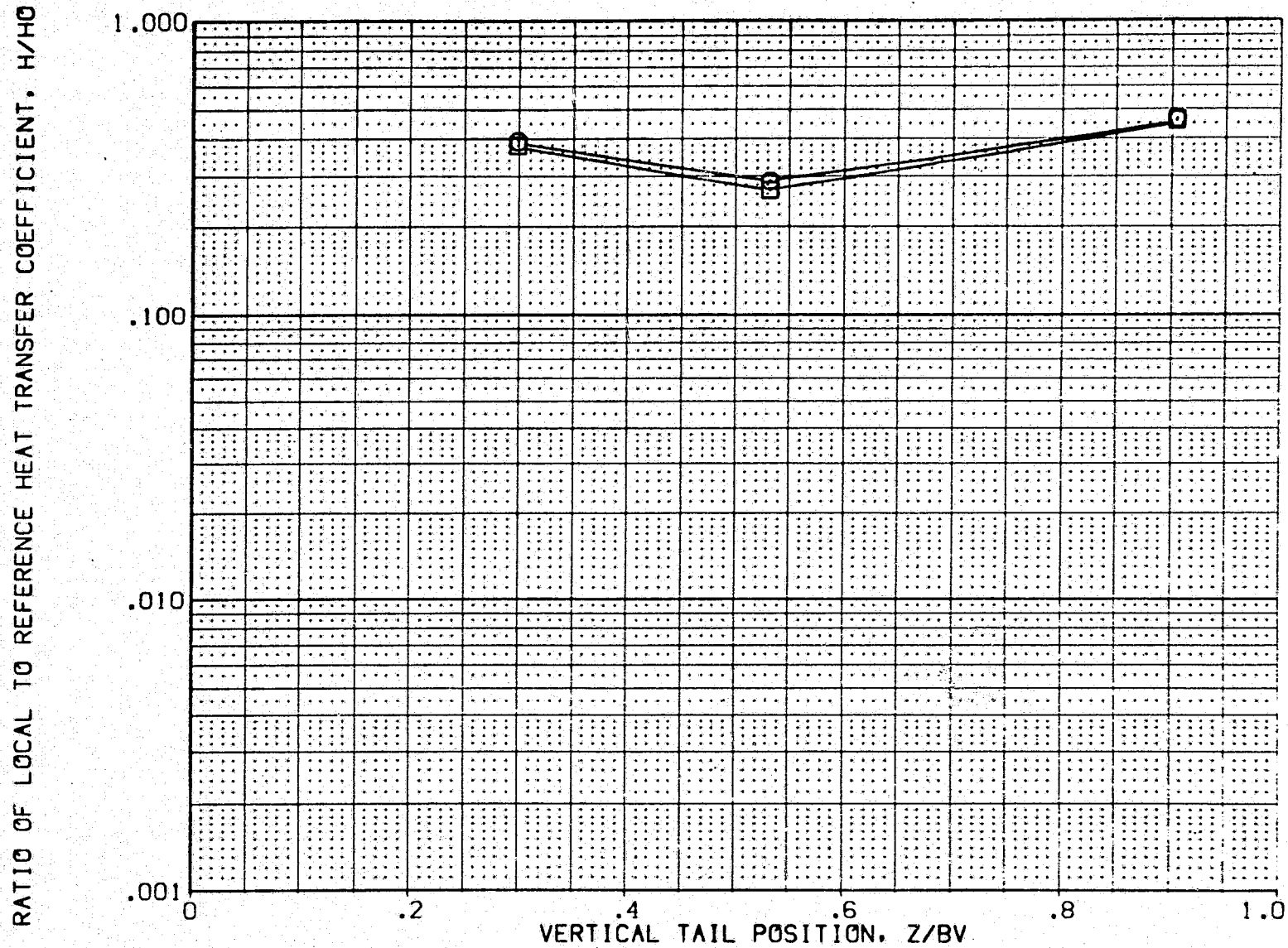


FIG.19 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 7.300 HAW/HT= .900 X/C = .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENA11)	○	ARC 3.5-185 IH20 01	ORB PHI=0.0	-5.000	.000	5.300	1.500
(RENA12)	□	ARC 3.5-185 IH20 01	ORB PHI=0.0	-5.000	.000	5.300	5.000

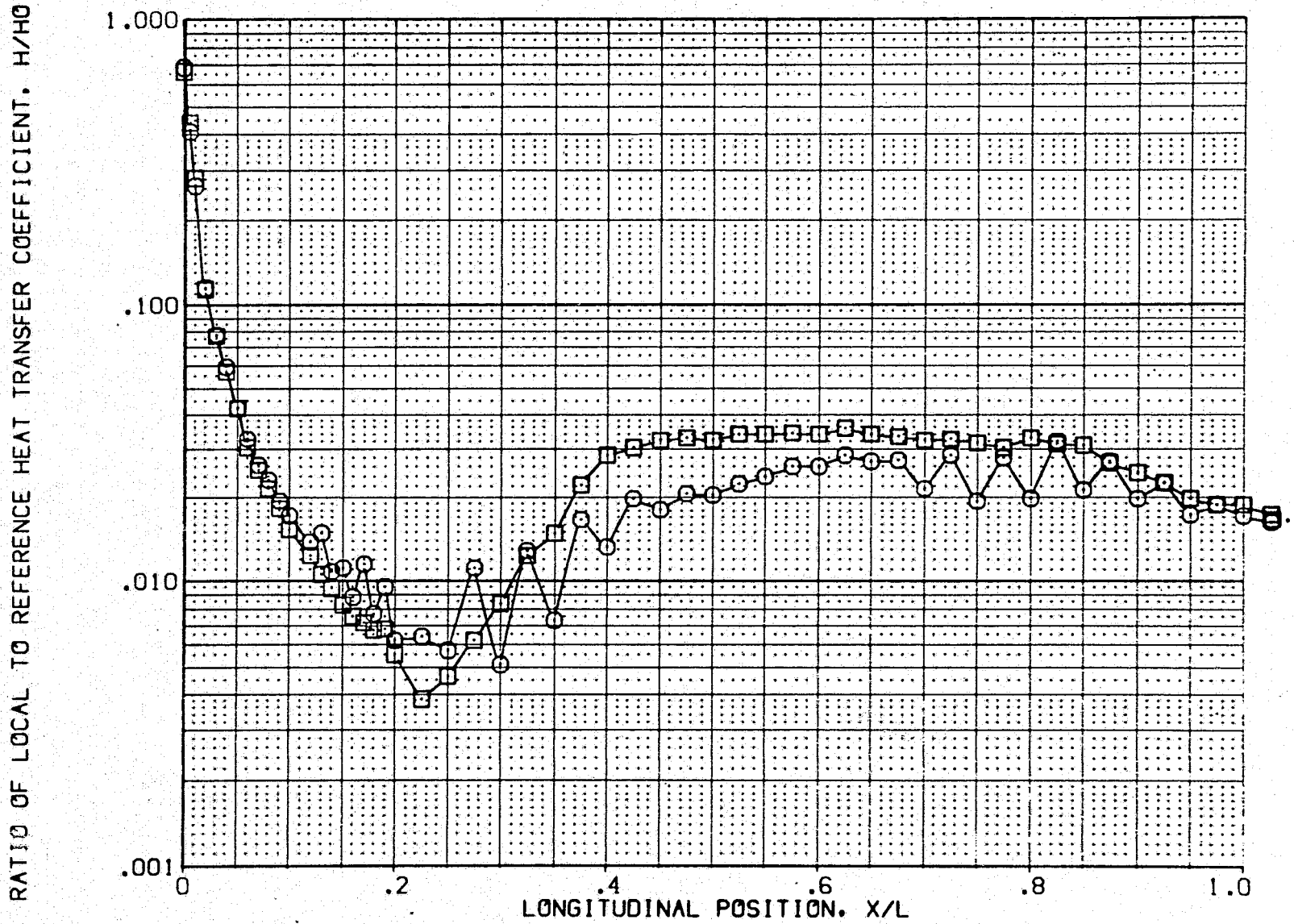


FIG. 20 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 PHI = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENC11) ○	ARC 3.5-185 1H20 01	ORB Y=0.875	-5.000	.000	5.300	1.500
(RENC12) □	ARC 3.5-185 1H20 01	ORB Y=0.875	-5.000	.000	5.300	5.000

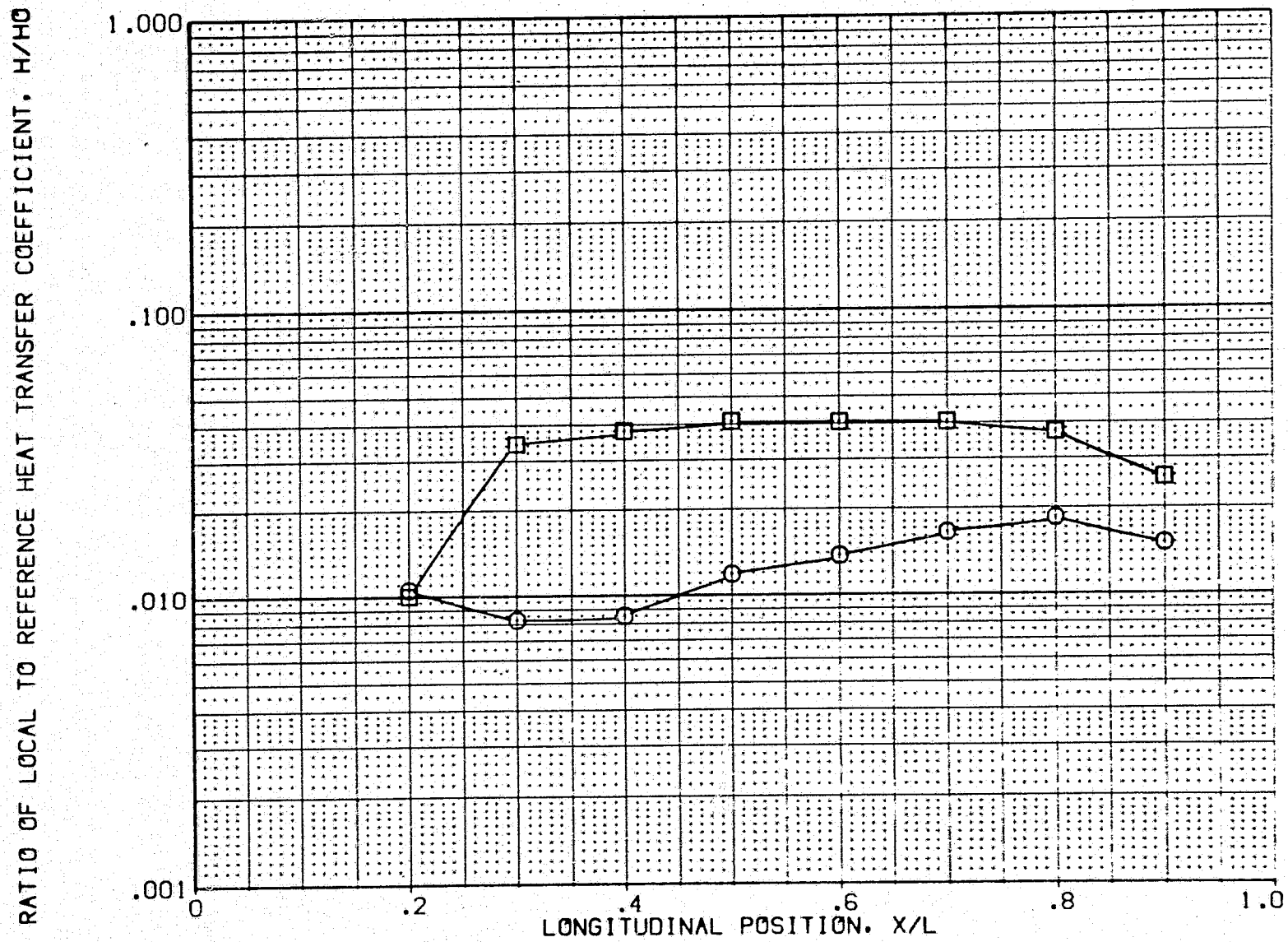


FIG. 20 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Y = .875

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENH11)	○	ARC 3.5-185 IH20 01	ORB Z=7.525	-5.000	.000	5.300	1.500
(RENH12)	□	ARC 3.5-185 IH20 01	ORB Z=7.525	-5.000	.000	5.300	5.000

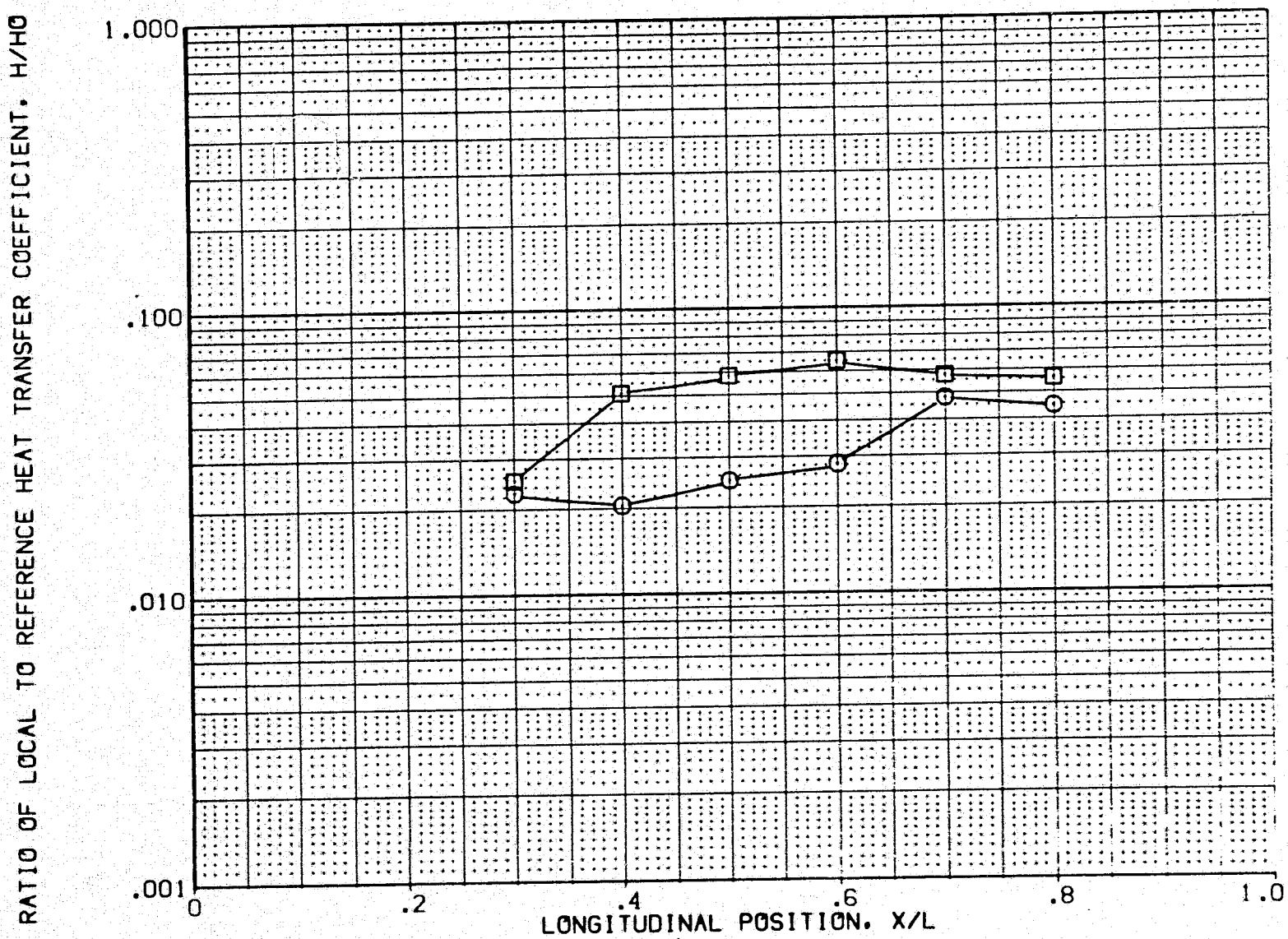


FIG. 20 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.525

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN111)	ARC 3.5-185 IH20 01	ORB WINDOWS	-5.000	.000	5.300	1.500
(REN112)	ARC 3.5-185 IH20 01	ORB WINDOWS	-5.000	.000	5.300	5.000

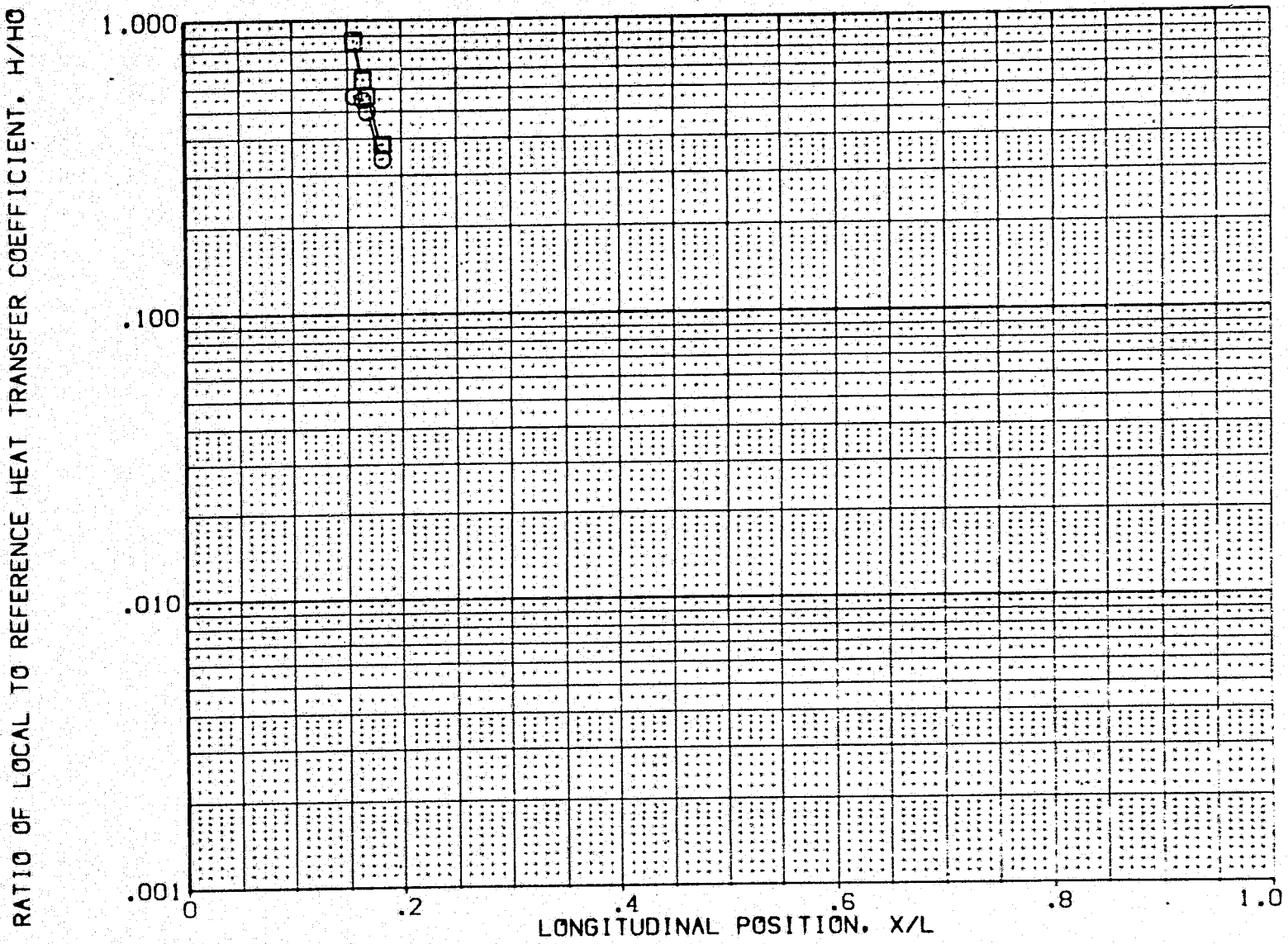


FIG. 20 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.910

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN111) ○	ARC 3.5-185 1H20 01	ORB WINDOWS	-5.000	.000	5.300	1.500
(REN112) □	ARC 3.5-185 1H20 01	ORB WINDOWS	-5.000	.000	5.300	5.000

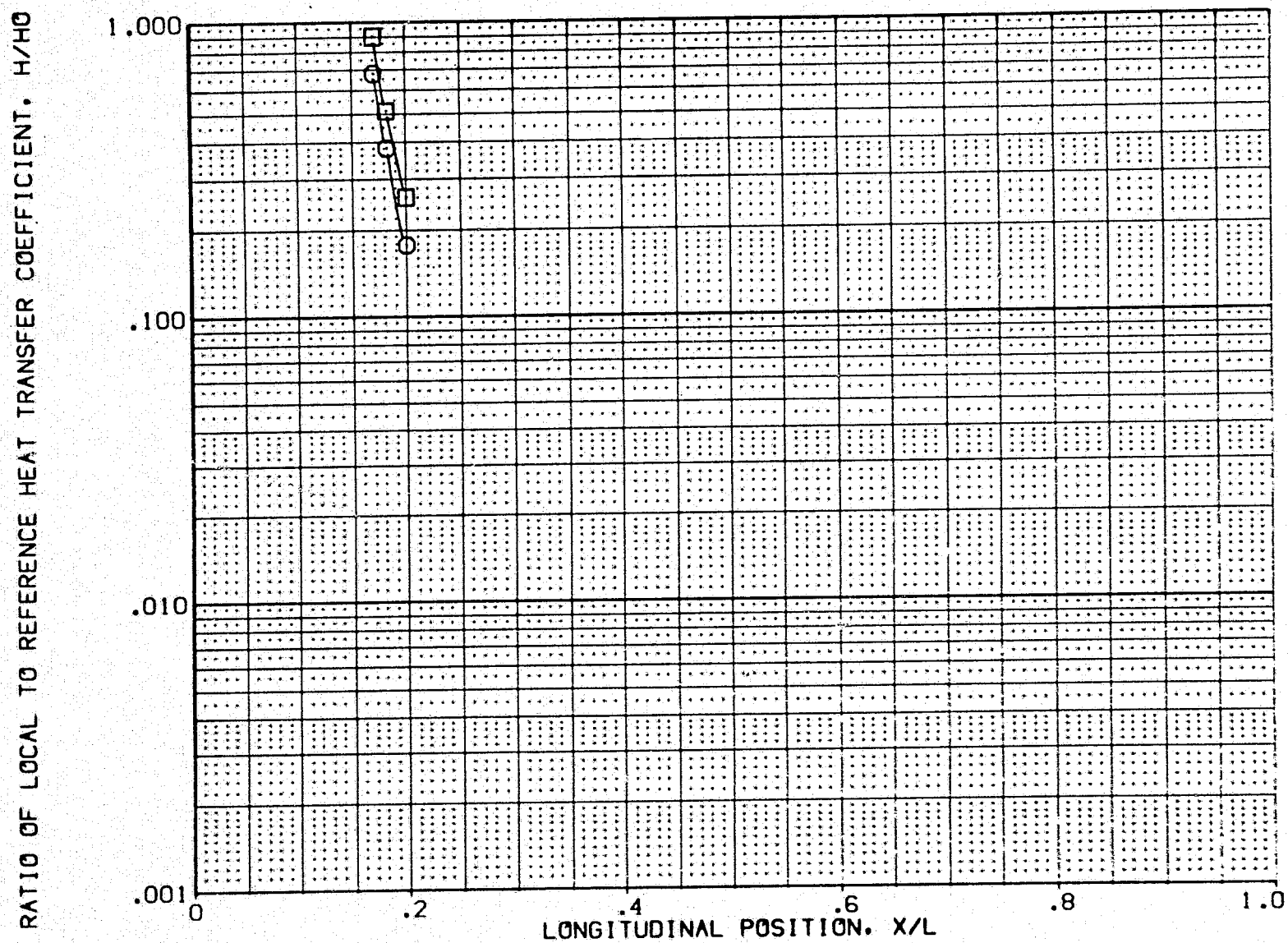


FIG. 20 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.137

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN111) ○	ARC 3.5-185 1H20 01	ORB WINDOWS	-5.000	.000	5.300	1.500
(REN112) □	ARC 3.5-185 1H20 01	ORB WINDOWS	-5.000	.000	5.300	5.000

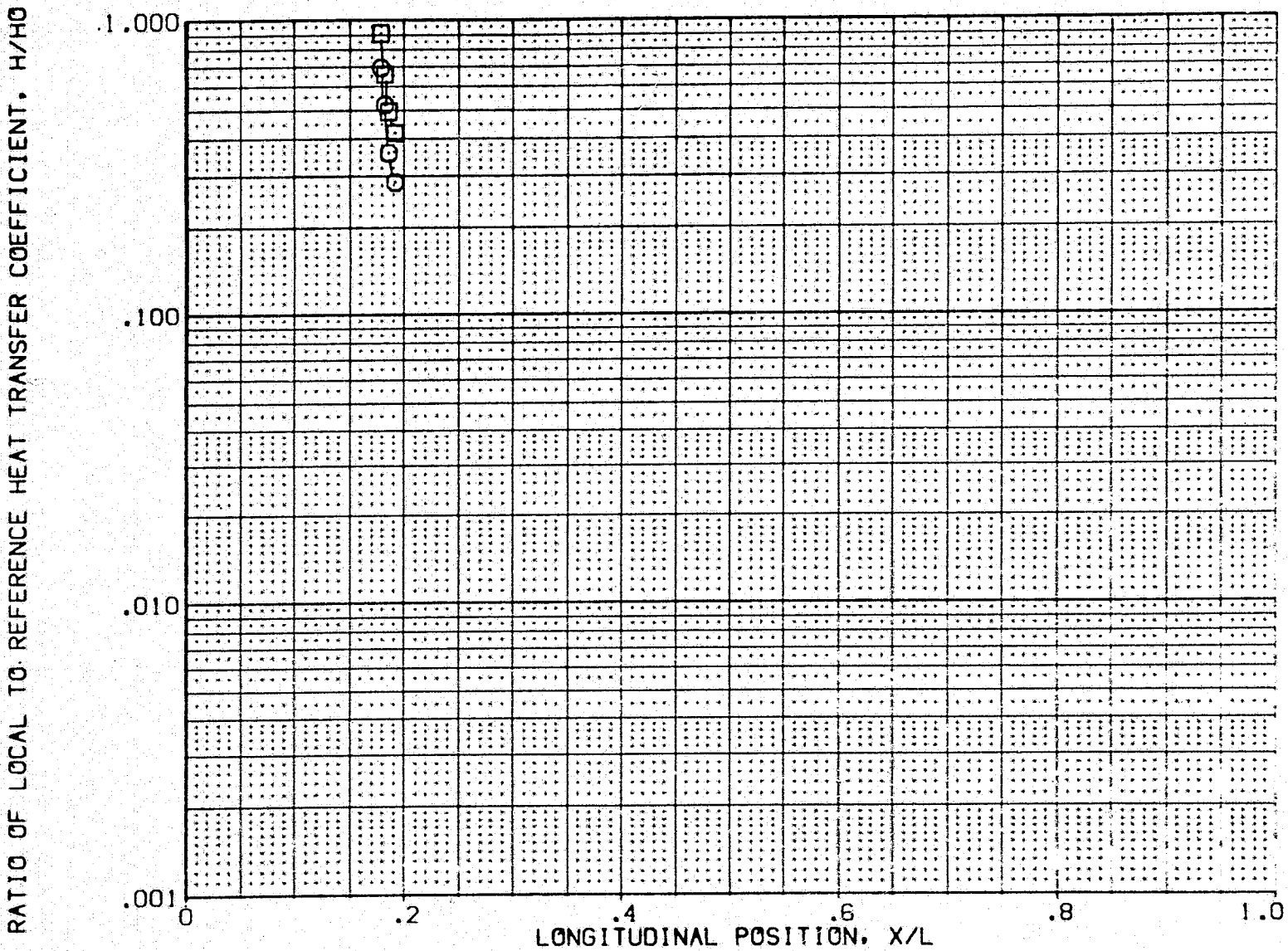


FIG. 20 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.365

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENM11) ○	ARC 3.5-185 1H20 01	ORB Z=8.295	-5.000	.000	5.300	1.500
(RENM12) □	ARC 3.5-185 1H20 01	ORB Z=8.295	-5.000	.000	5.300	5.000

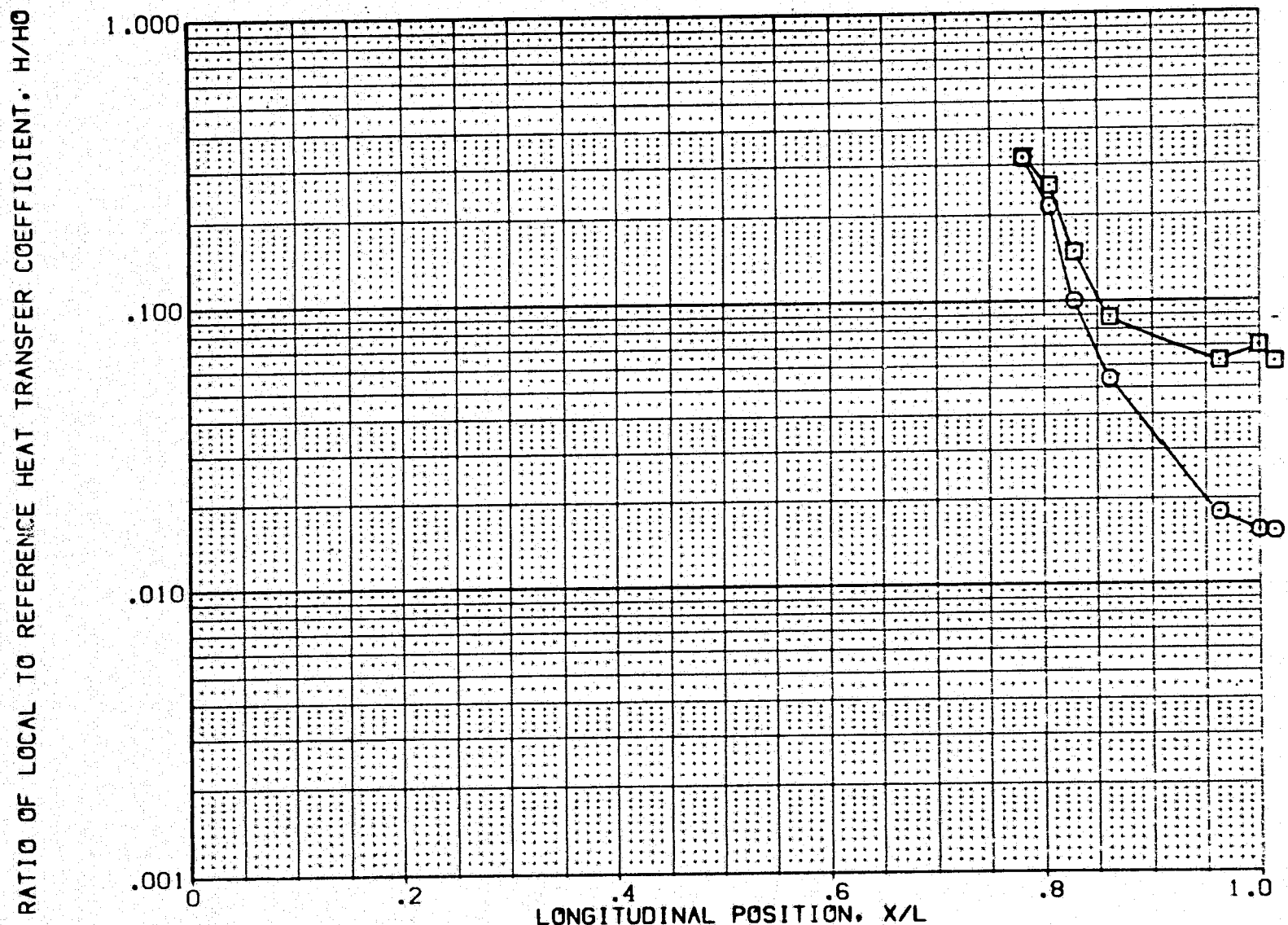


FIG. 20 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.295

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENJI1) ○	ARC 3.5-185 IH20 01	ORB Z=8.379	-5.000	.000	5.300	1.500
(RENJI2) □	ARC 3.5-185 IH20 01	ORB Z=8.379	-5.000	.000	5.300	5.000

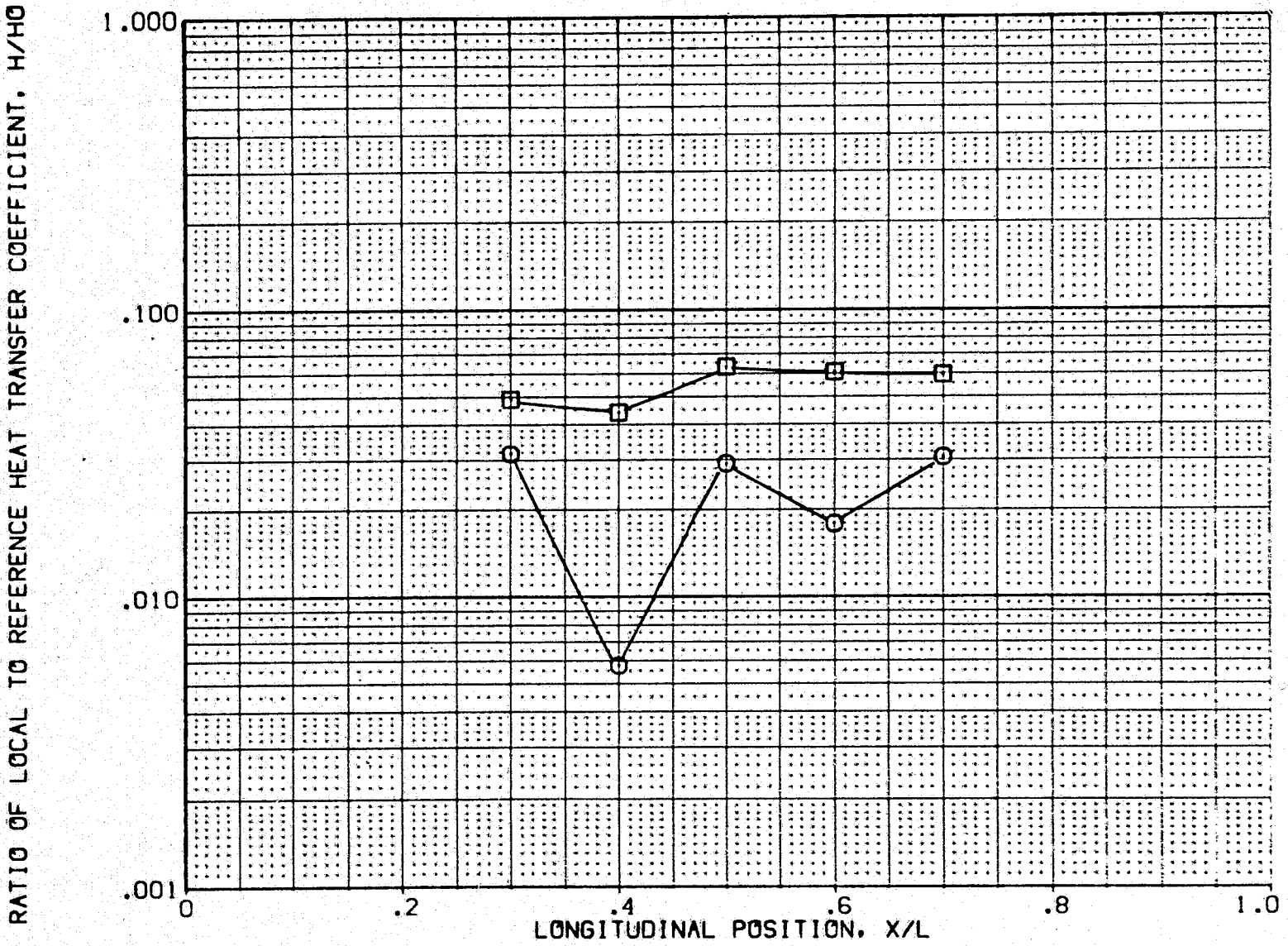


FIG. 20 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.379

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENO11)	○	ARC 3.5-185 IH20 01	OMS TOP	-5.000	.000	5.300	1.500
(RENO12)	□	ARC 3.5-185 IH20 01	OMS TOP	-5.000	.000	5.300	5.000

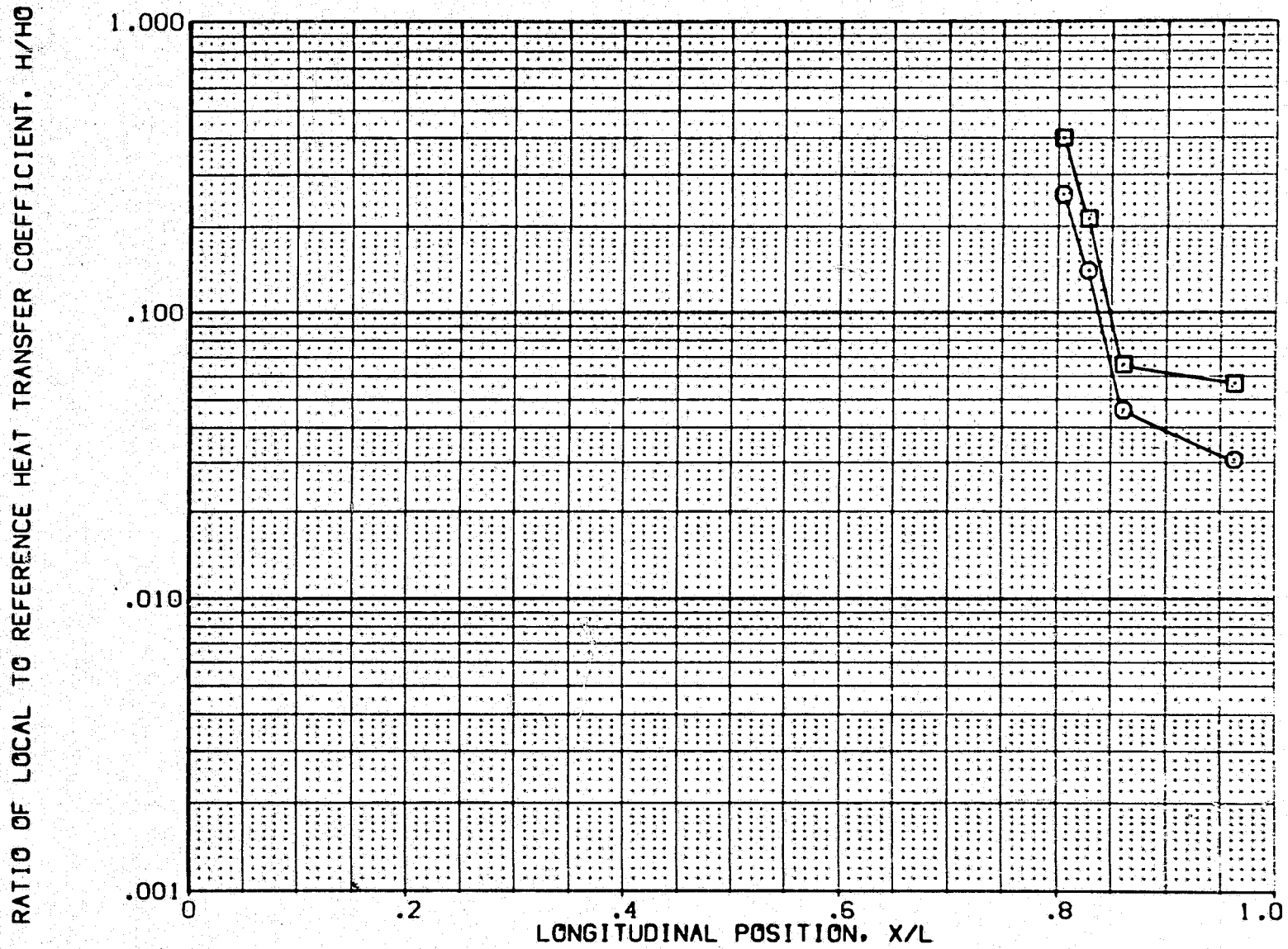


FIG. 20 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Y = 1.662

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENK11) ○	ARC 3.5-185 1H20 01	ORB PHI=180	-5.000	.000	5.300	1.500
(RENK12) □	ARC 3.5-185 1H20 01	ORB PHI=180	-5.000	.000	5.300	5.000



FIG. 20 EFFECT OF REYNOLDS NO. - BODY.

MACH = 5.300 HAW/HT= .900 PHI = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW11) ○	ARC 3.5-185 1H20 01	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW12) □	ARC 3.5-185 1H20 01	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

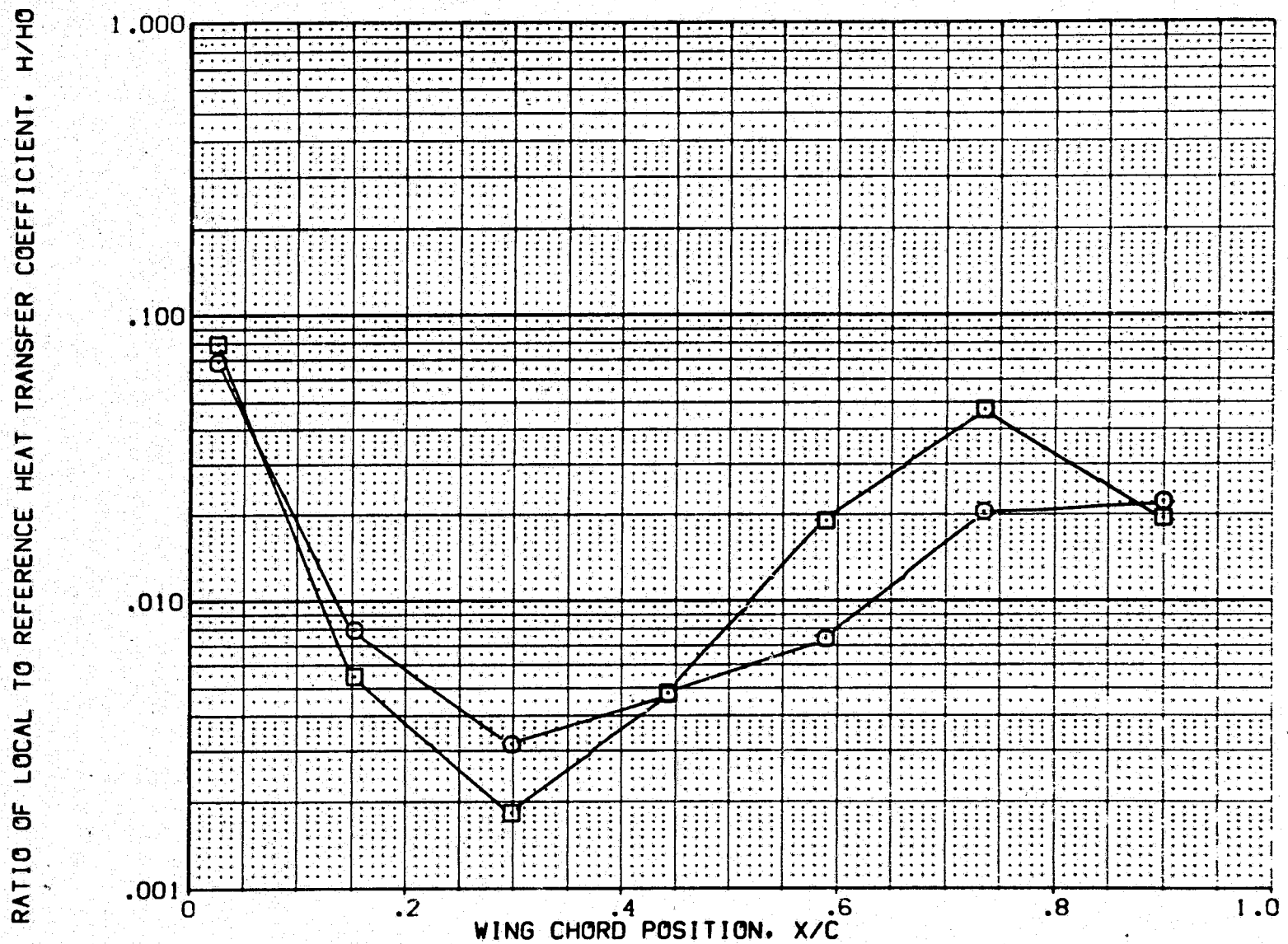


FIG. 21 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .250

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW11)	ARC 3.5-185 1H20 01	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW12)	ARC 3.5-185 1H20 01	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

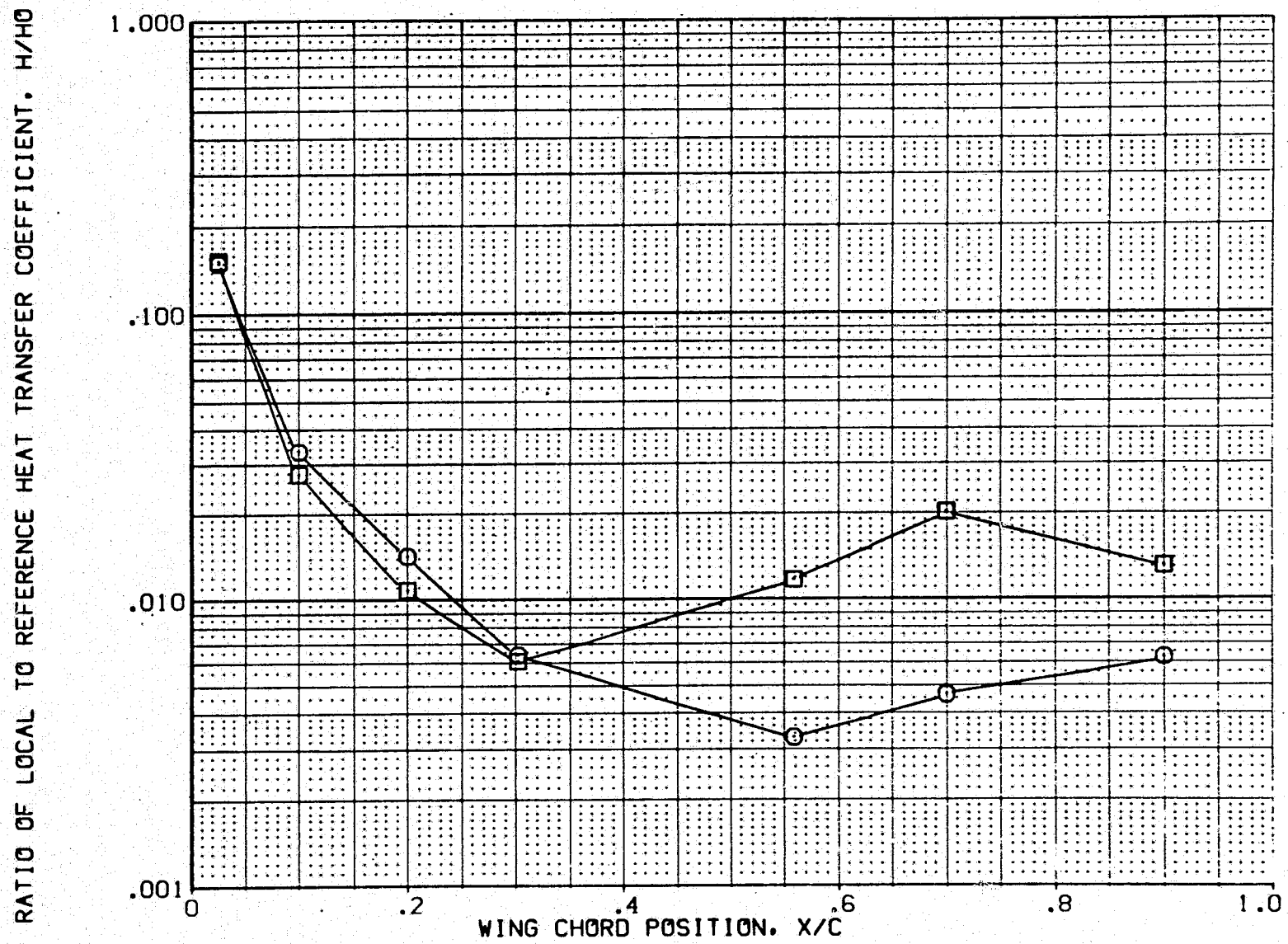


FIG. 21 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW11) ○	ARC 3.5-185 IH20 01	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW12) □	ARC 3.5-185 IH20 01	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

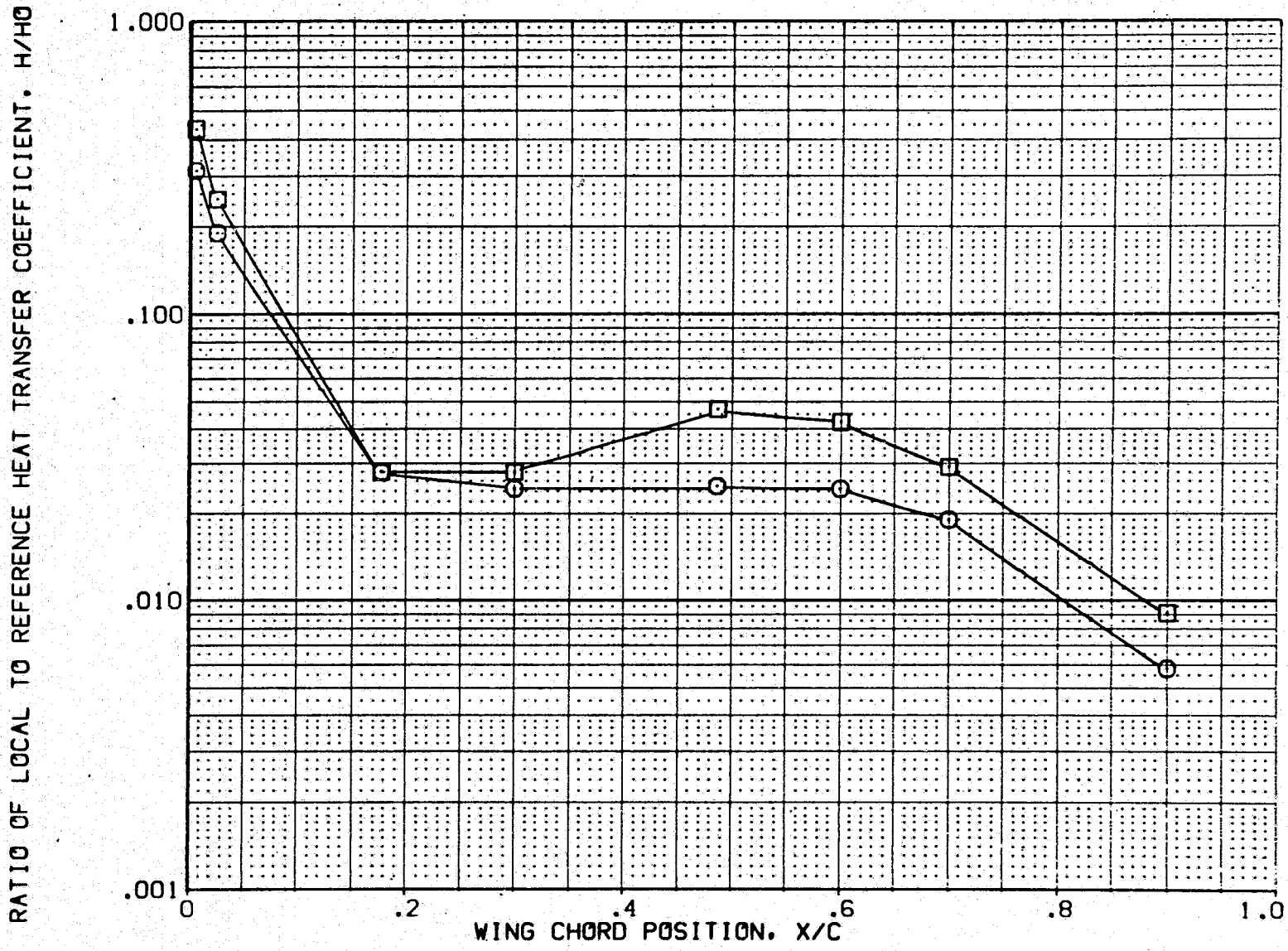


FIG. 21 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV11)	○	ARC 3.5-185 IH20 01	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENV12)	□	ARC 3.5-185 IH20 01	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

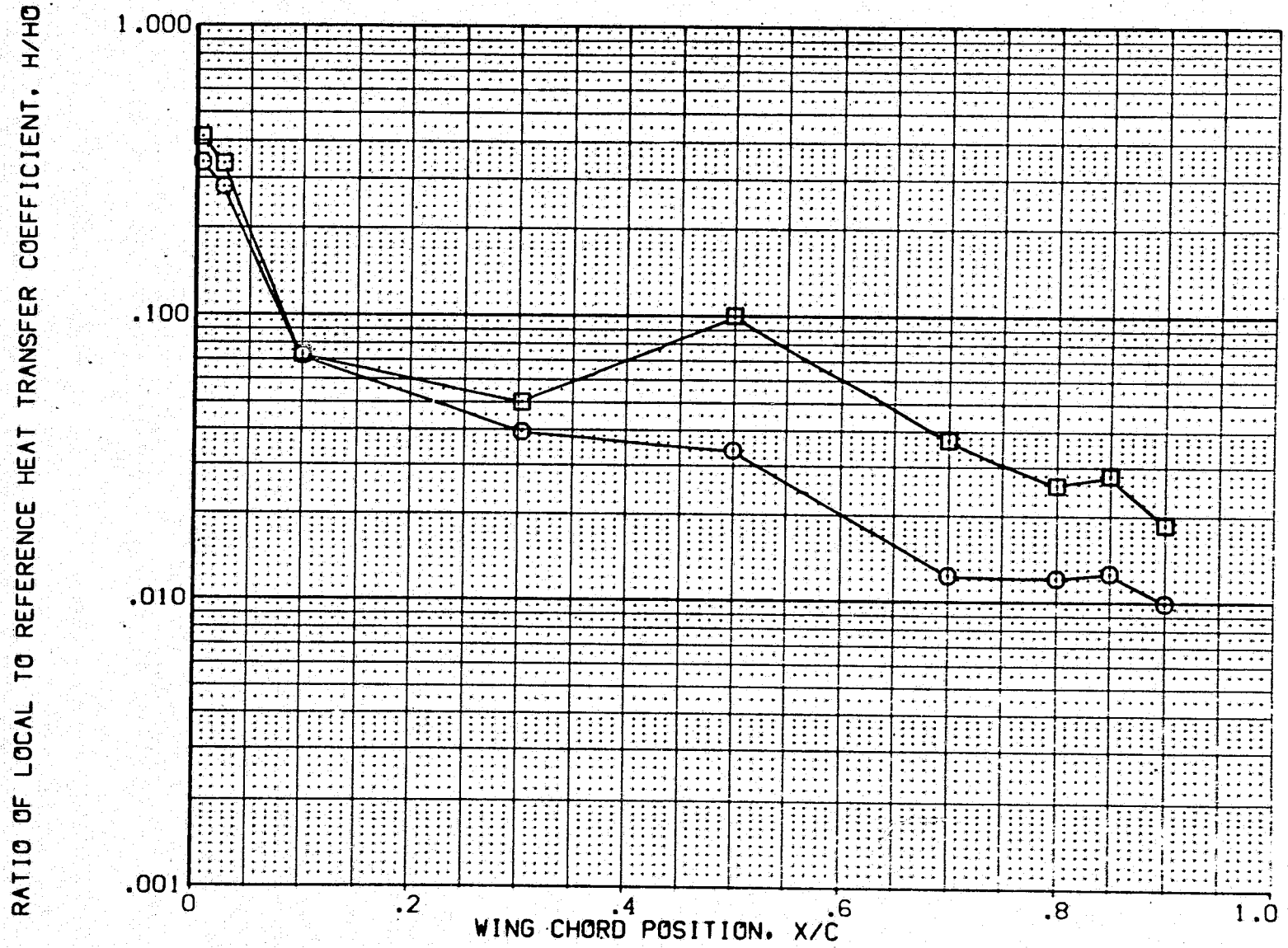


FIG. 21 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .750

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW11)	○	ARC 3.5-185 1H20 01	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW12)	□	ARC 3.5-185 1H20 01	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

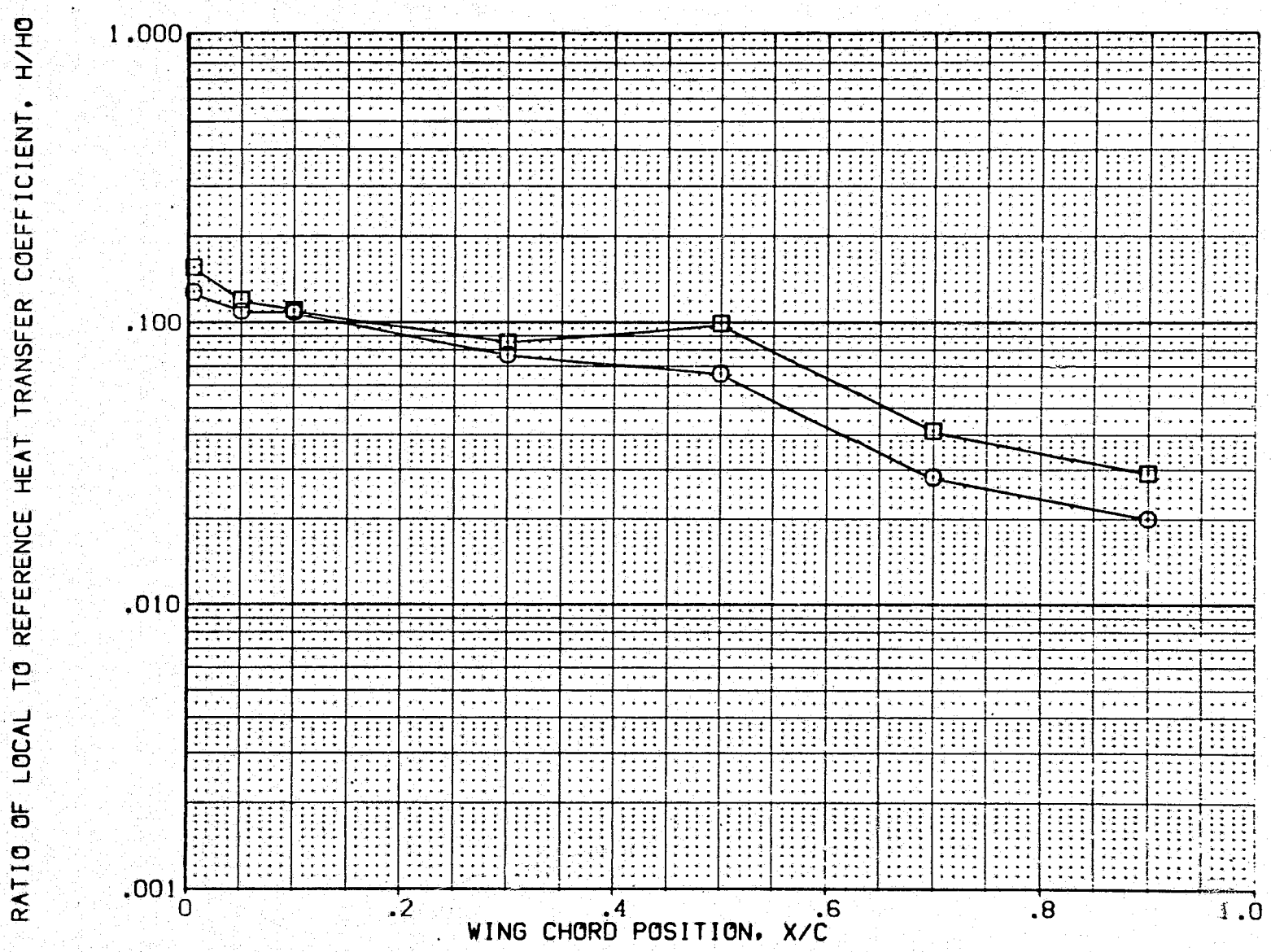


FIG. 21 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .950

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX11)	○	ARC 3.5-185 1H20 01	WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX12)	□	ARC 3.5-185 1H20 01	WING UPPER SURF.	-5.000	.000	5.300	5.000

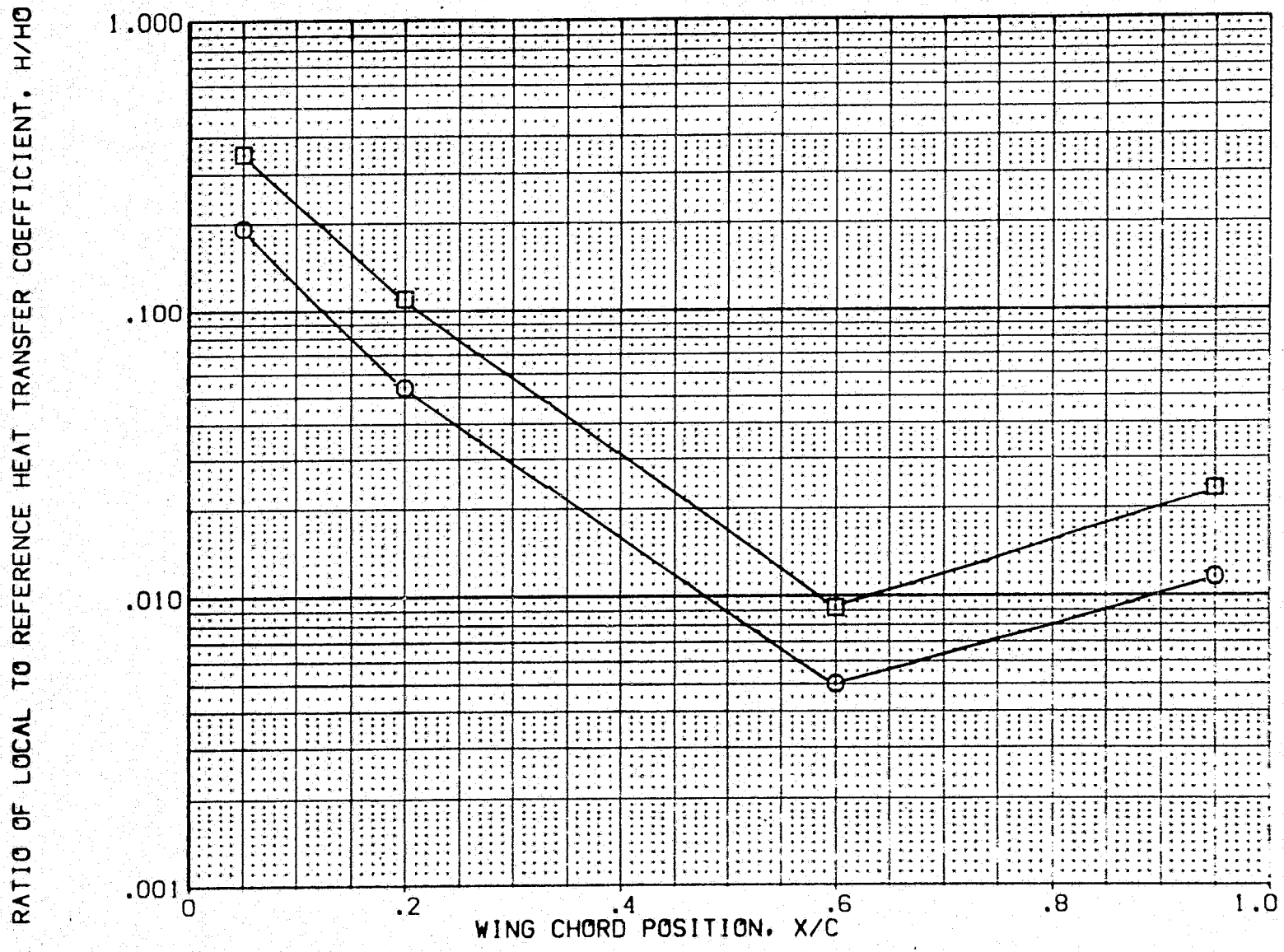


FIG. 21 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX11)	○	ARC 3.5-185 IH20 01	WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX12)	□	ARC 3.5-185 IH20 01	WING UPPER SURF.	-5.000	.000	5.300	5.000

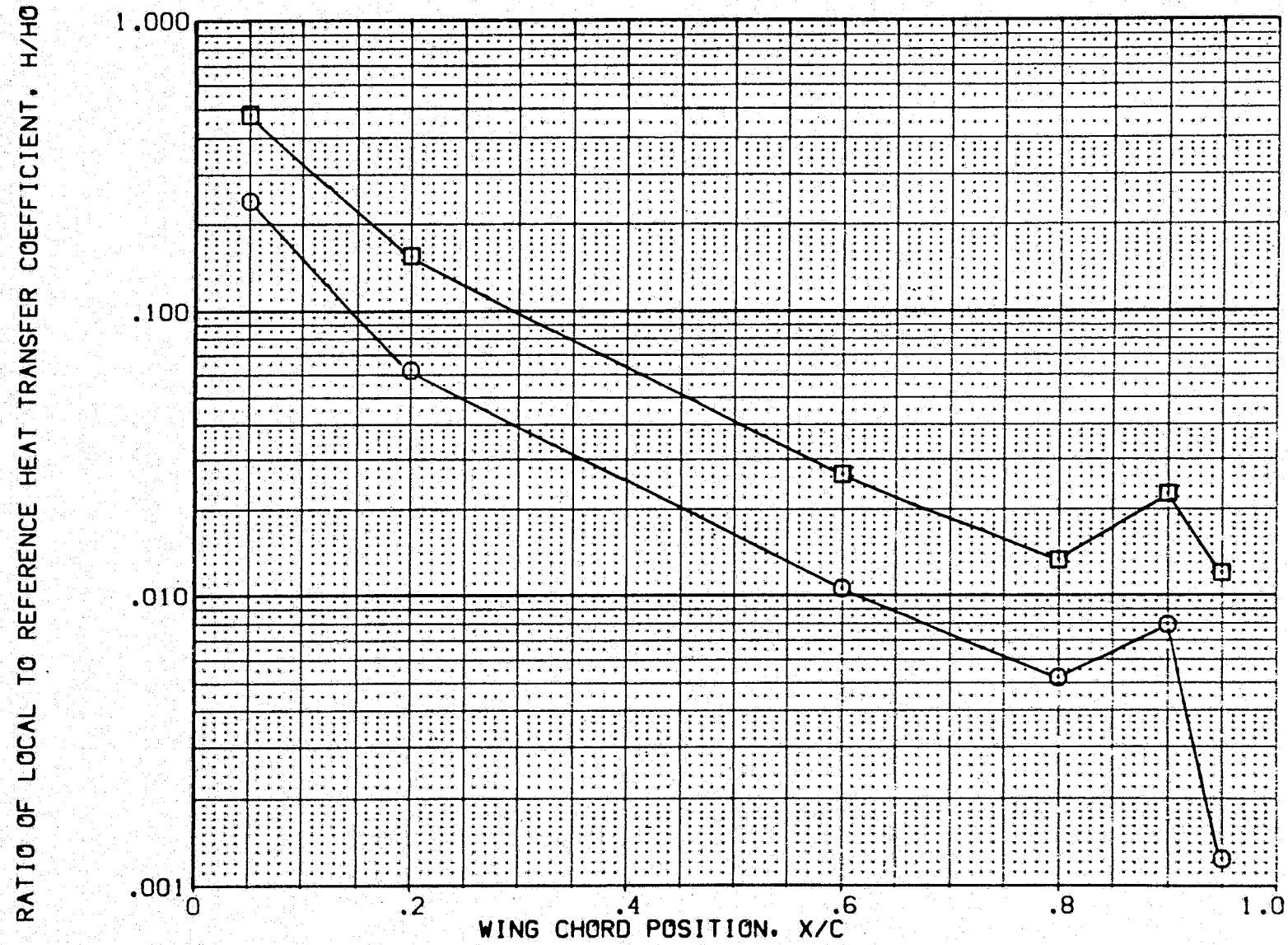


FIG. 21 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .600

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX11)	ARC 3.5-185 1H20 01	WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX12)	ARC 3.5-185 1H20 01	WING UPPER SURF.	-5.000	.000	5.300	5.000

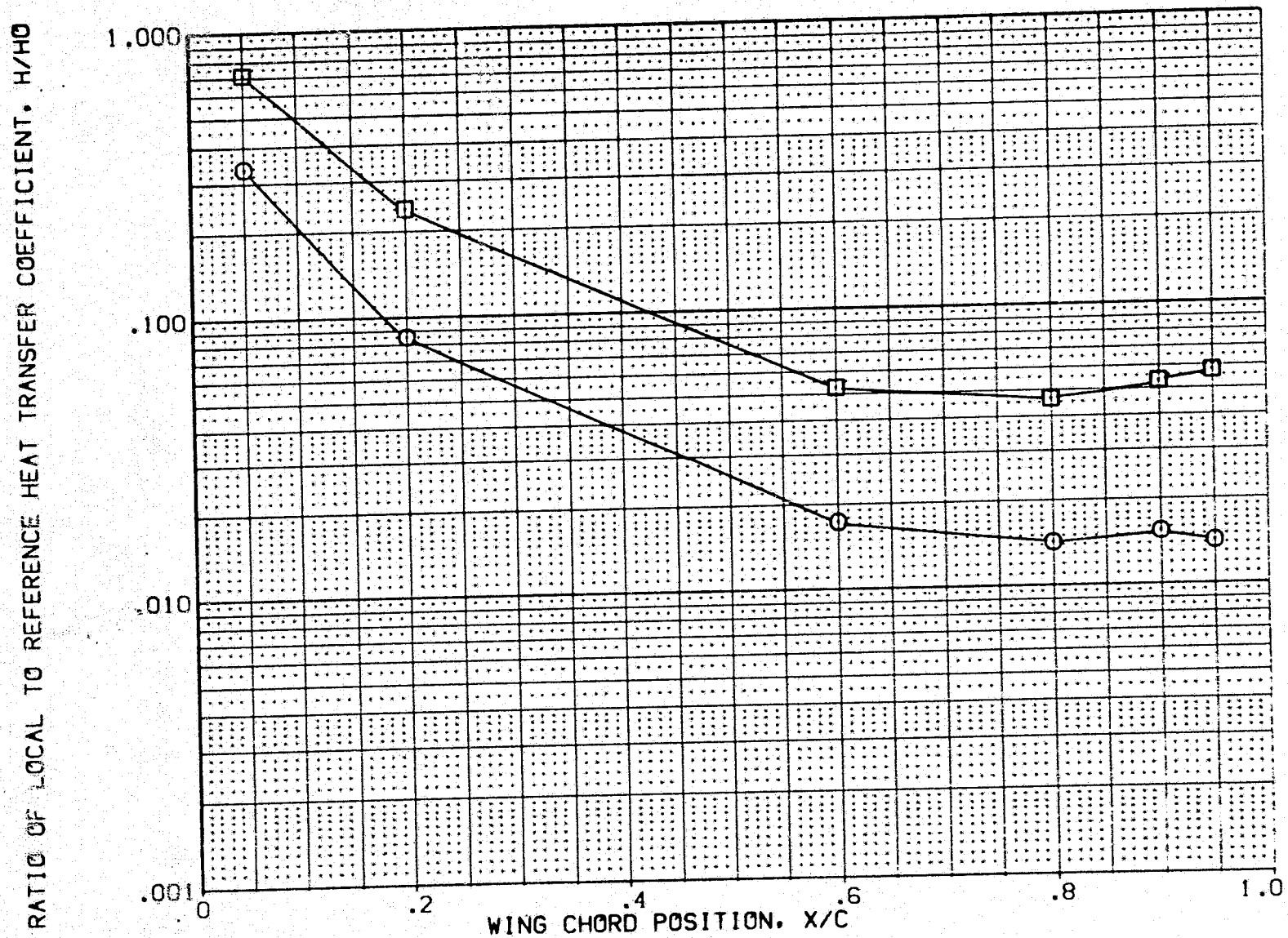


FIG. 21 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .800

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV11)	○	ARC 3.5-185 IH20 01	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV12)	□	ARC 3.5-185 IH20 01	VERTICAL TAIL	-5.000	.000	5.300	5.000

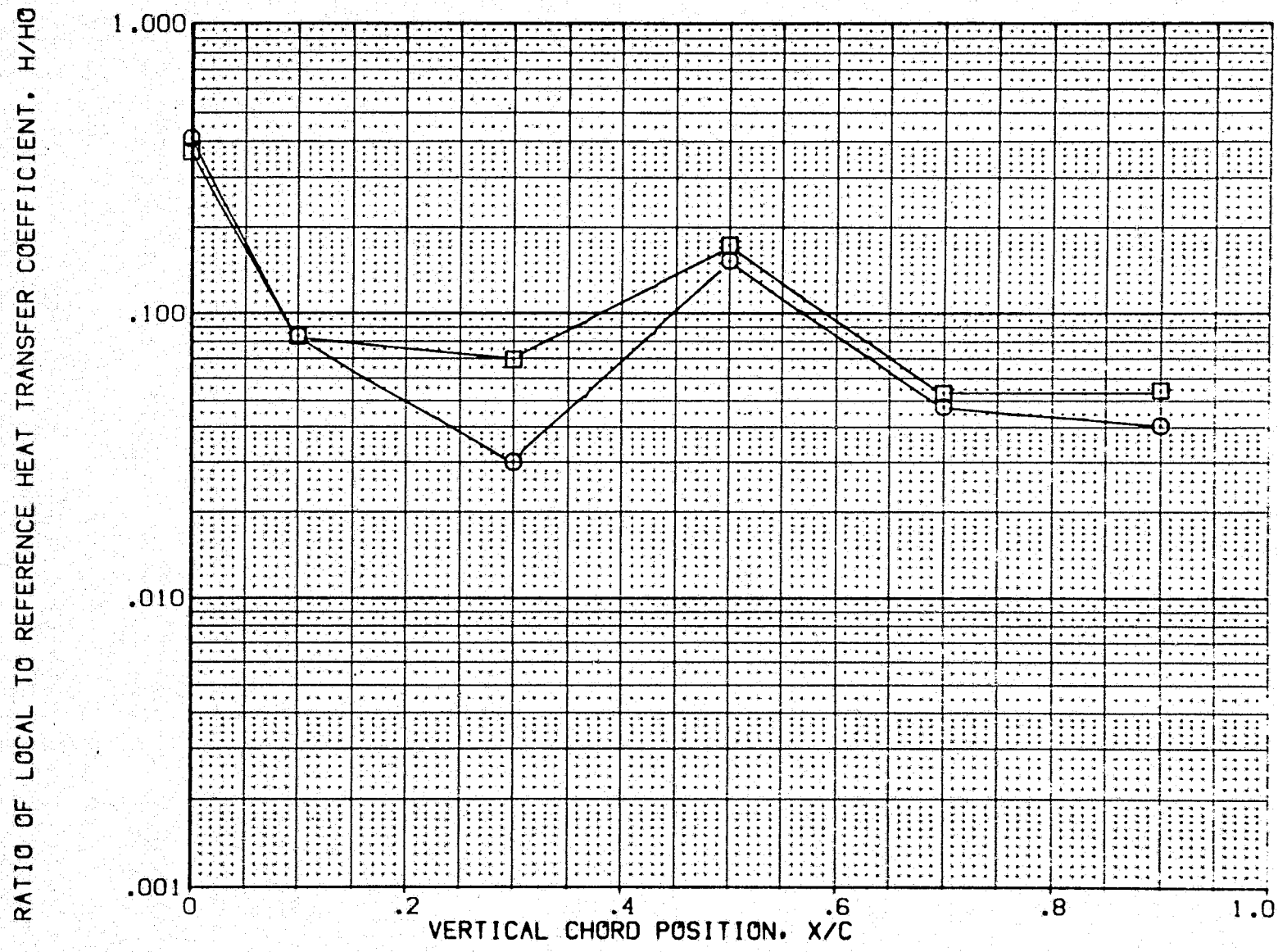


FIG. 22 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .299

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV11)	ARC 3.5-185 1H20 01	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV12)	ARC 3.5-185 1H20 01	VERTICAL TAIL	-5.000	.000	5.300	5.000

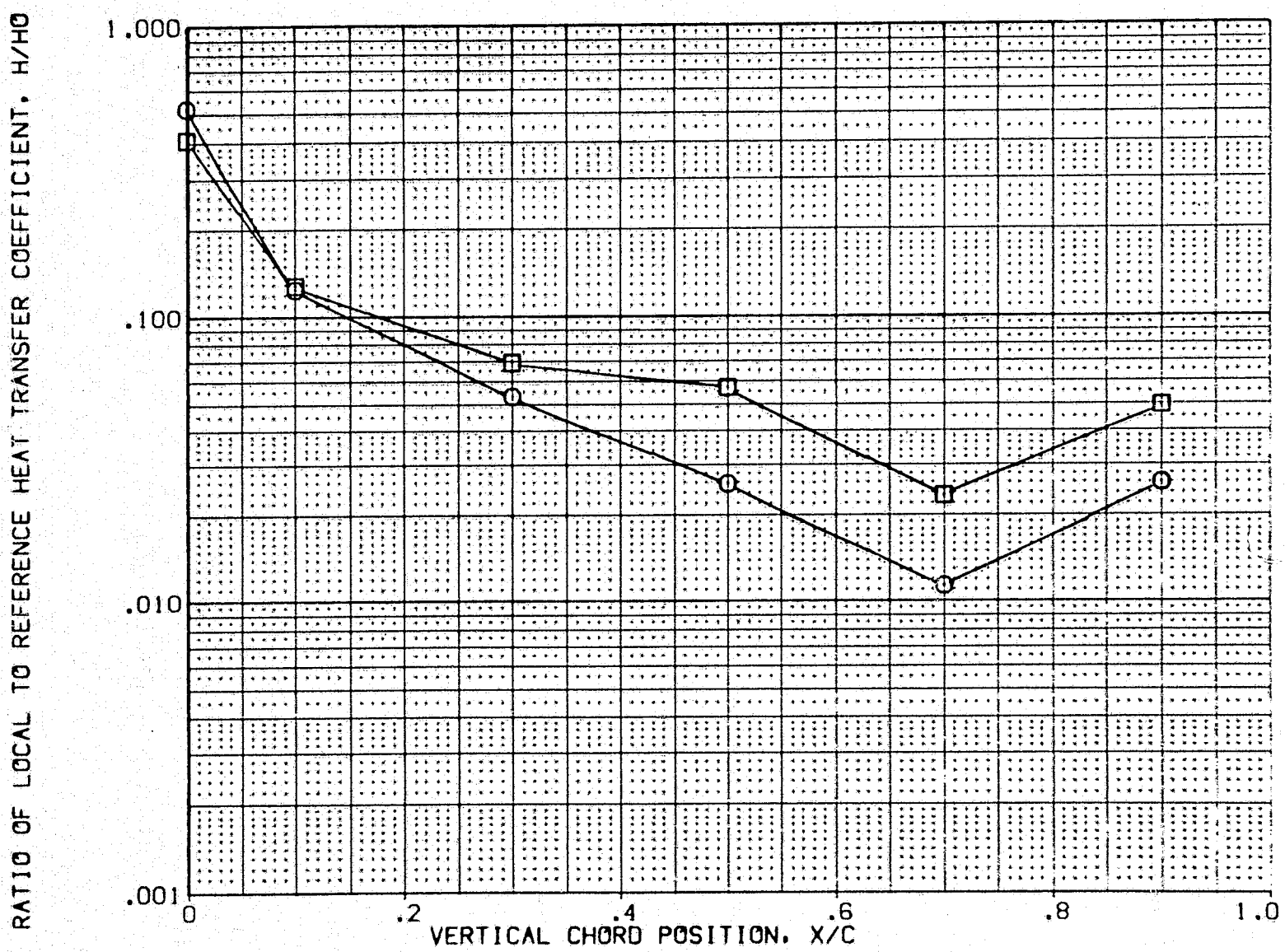


FIG. 22 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .532

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV11) ○	ARC 3.5-185 IH20 01	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV12) □	ARC 3.5-185 IH20 01	VERTICAL TAIL	-5.000	.000	5.300	5.000

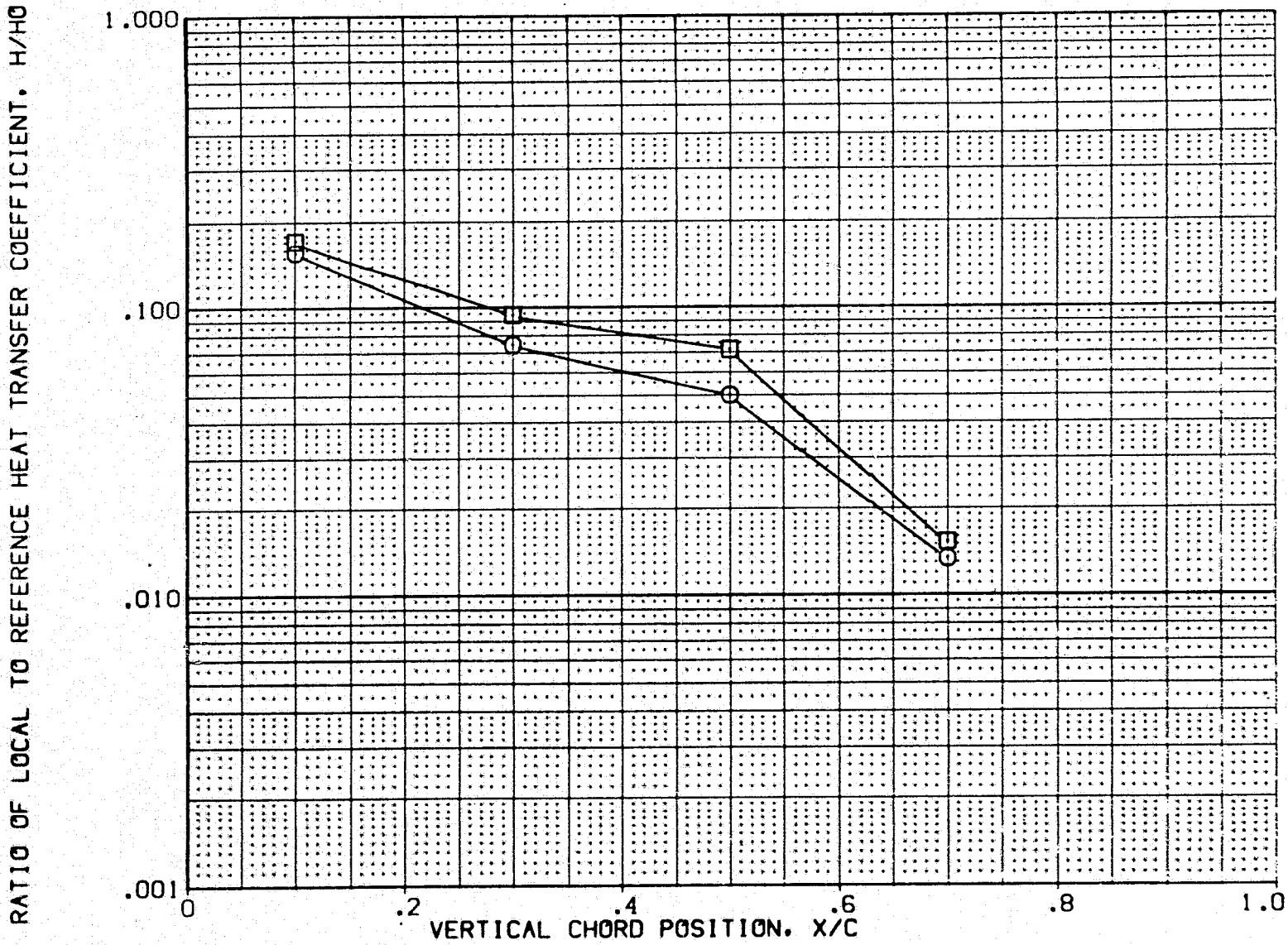


FIG. 22 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .765

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENVI1) ○	ARC 3.5-185 IH20 01	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENVI2) □	ARC 3.5-185 IH20 01	VERTICAL TAIL	-5.000	.000	5.300	5.000

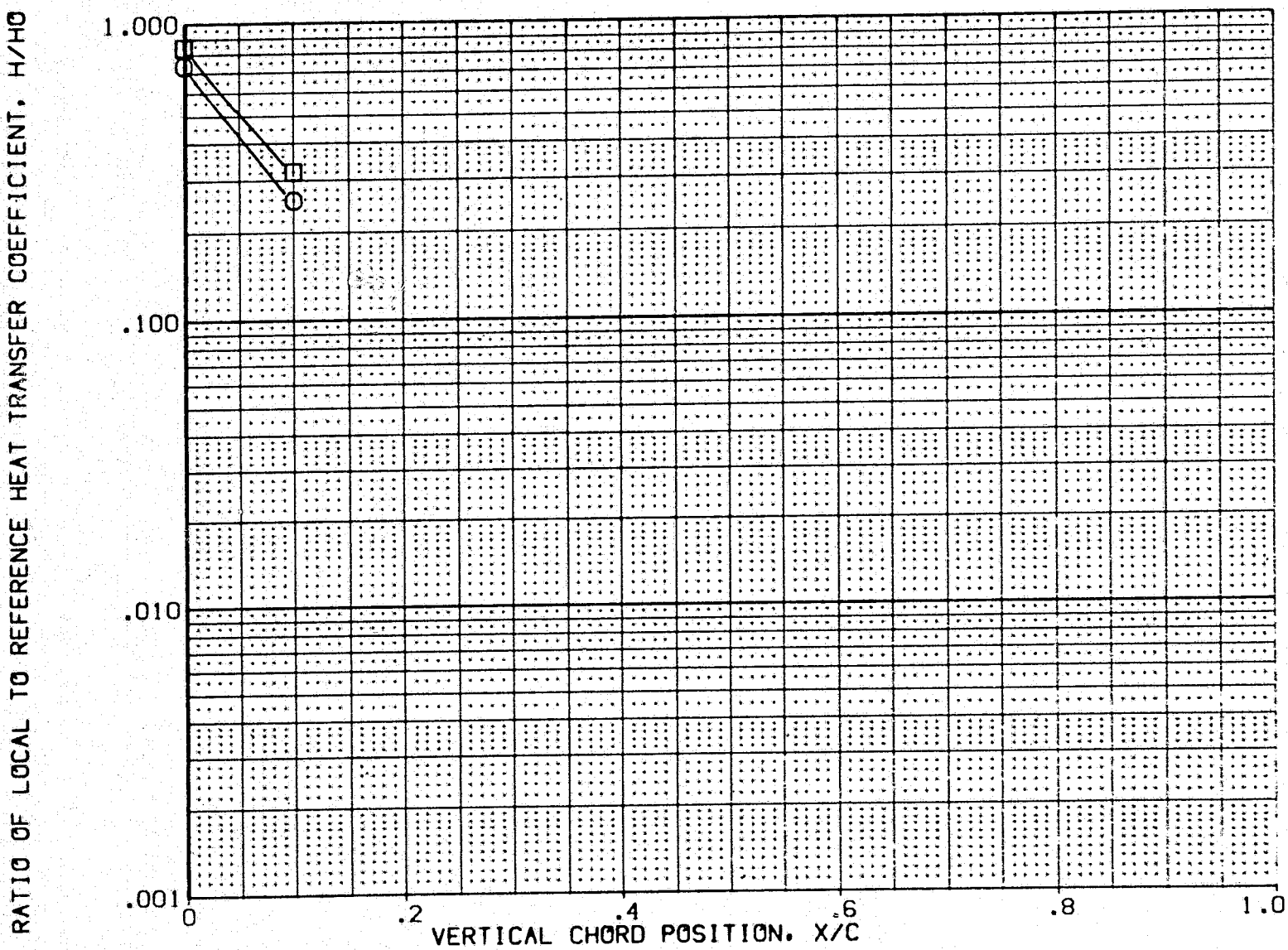


FIG. 22 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .905

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV11) ○	ARC 3.5-185 1H20 01	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV12) □	ARC 3.5-185 1H20 01	VERTICAL TAIL	-5.000	.000	5.300	5.000

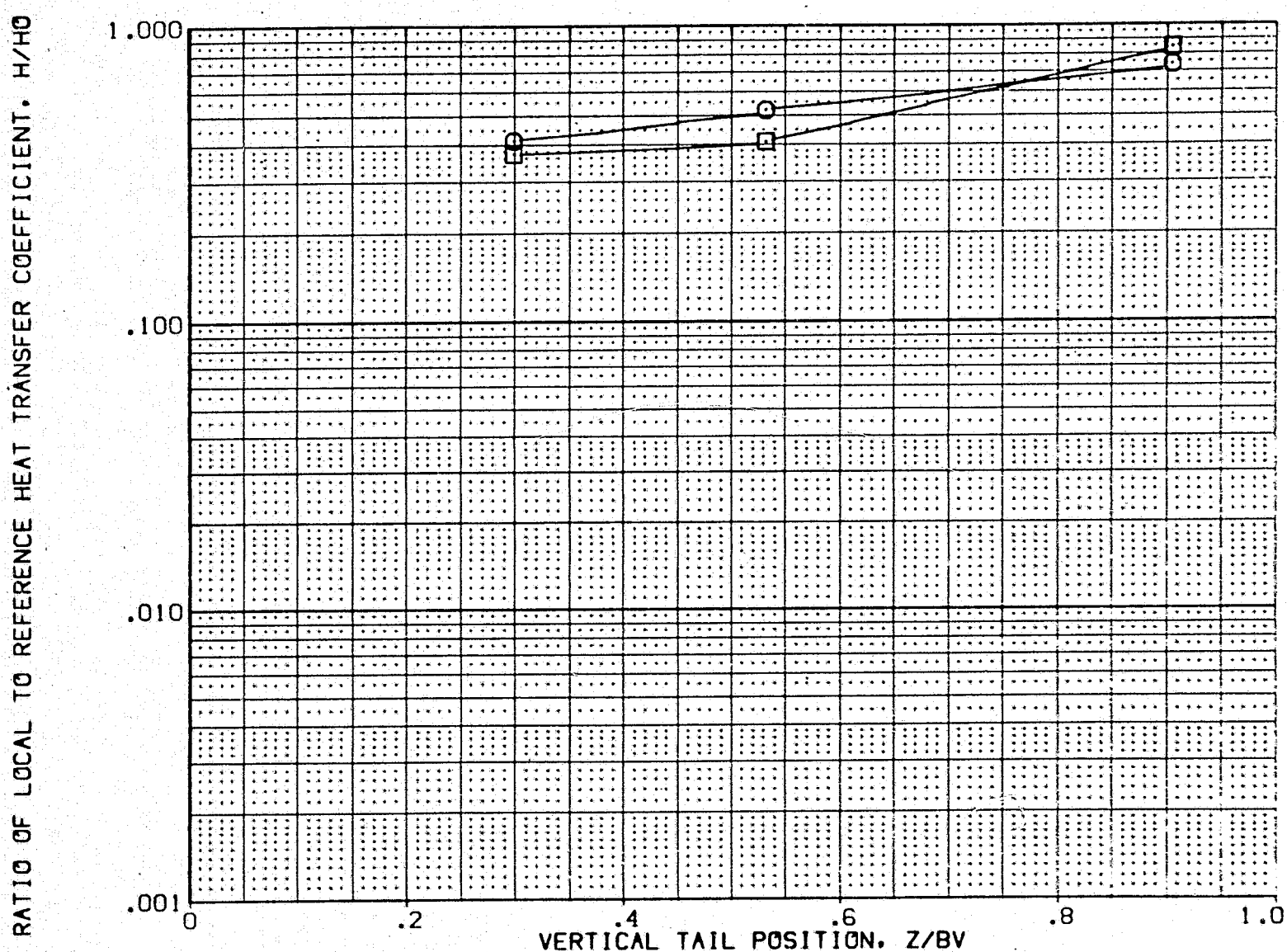


FIG. 22 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 X/C = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENT04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT05) □	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	5.000

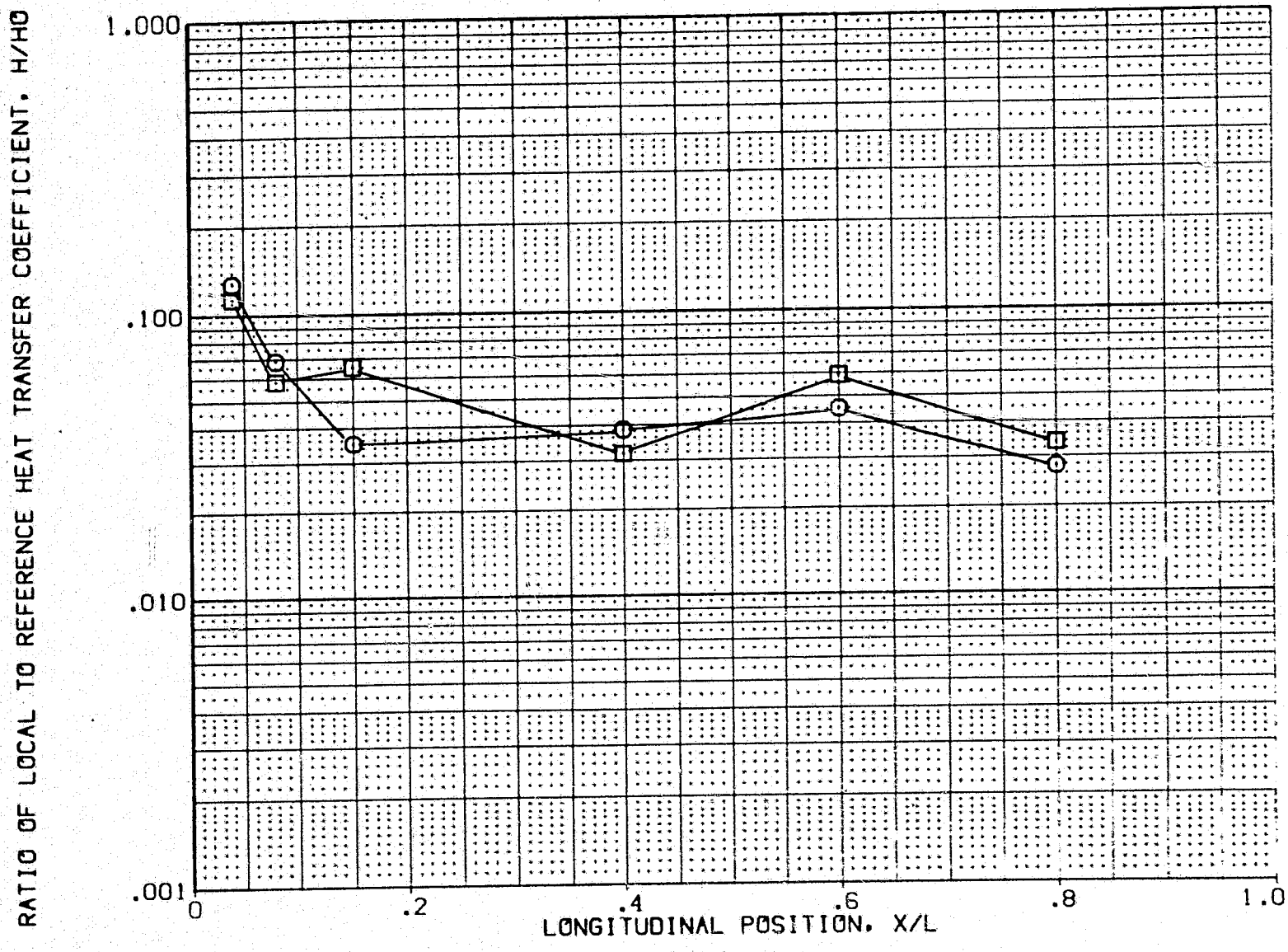


FIG. 23 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENT04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	5.000

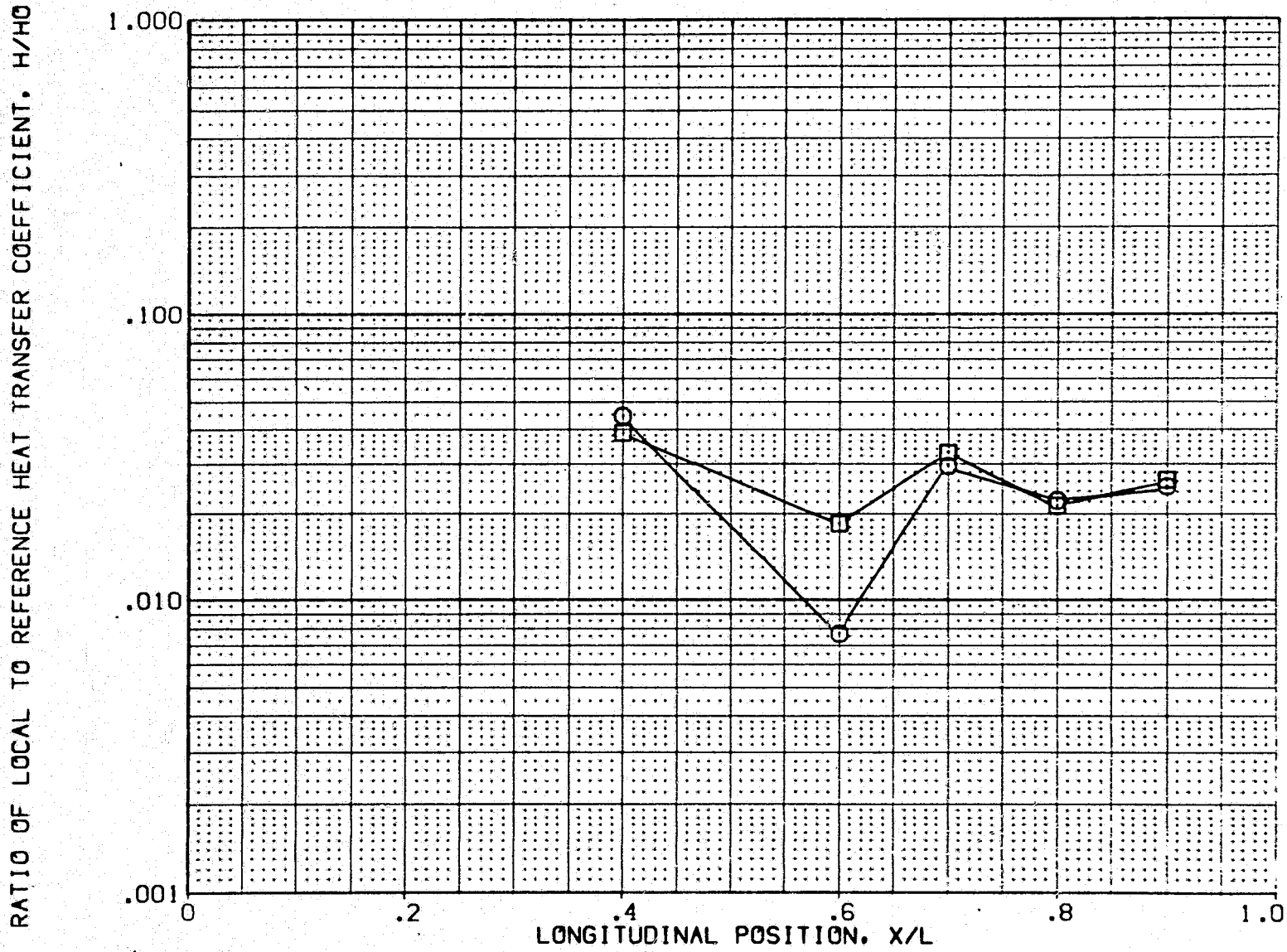


FIG. 23 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 45.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENT04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	5.000

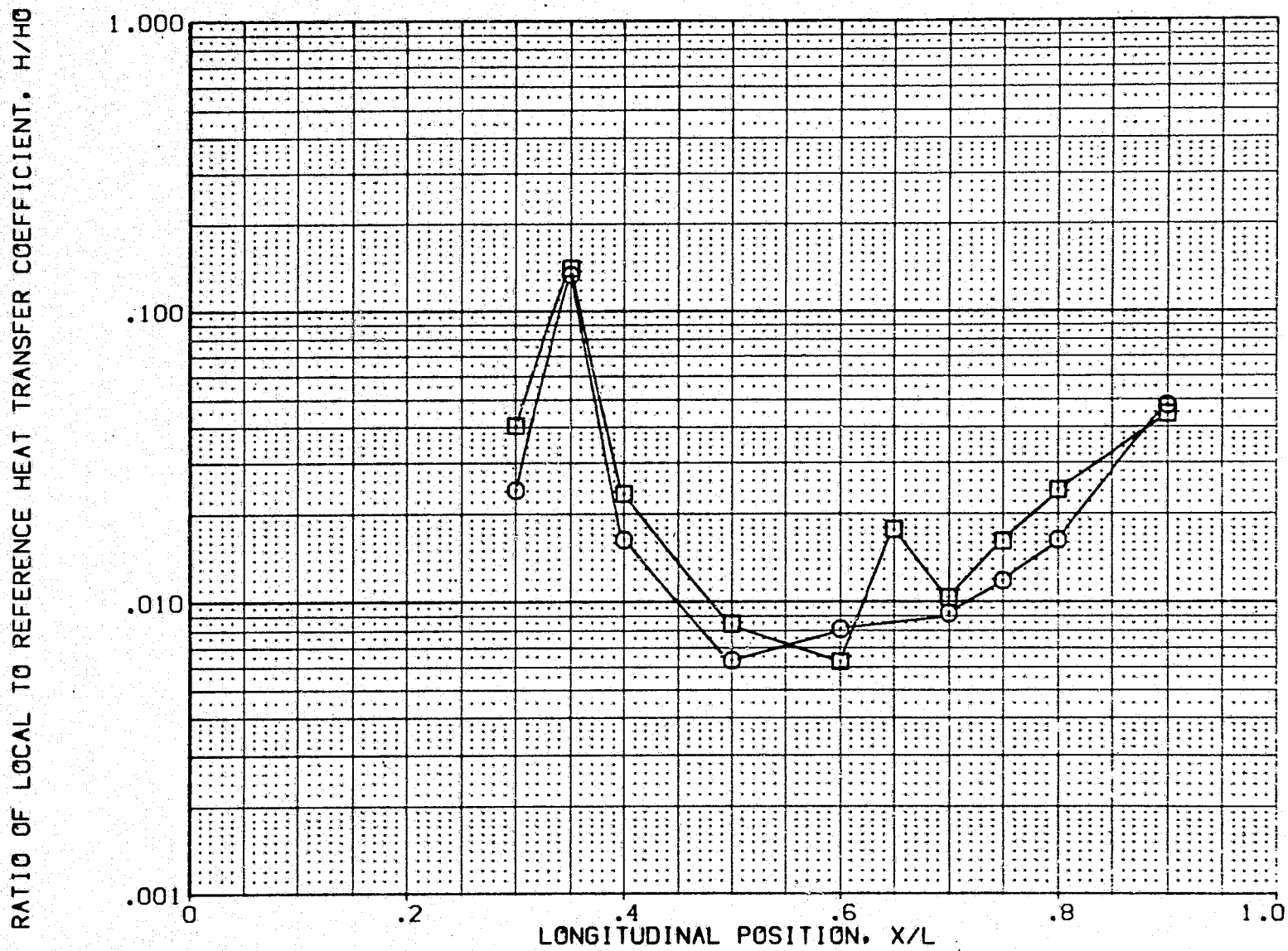


FIG. 23 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 67.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENT04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	5.000

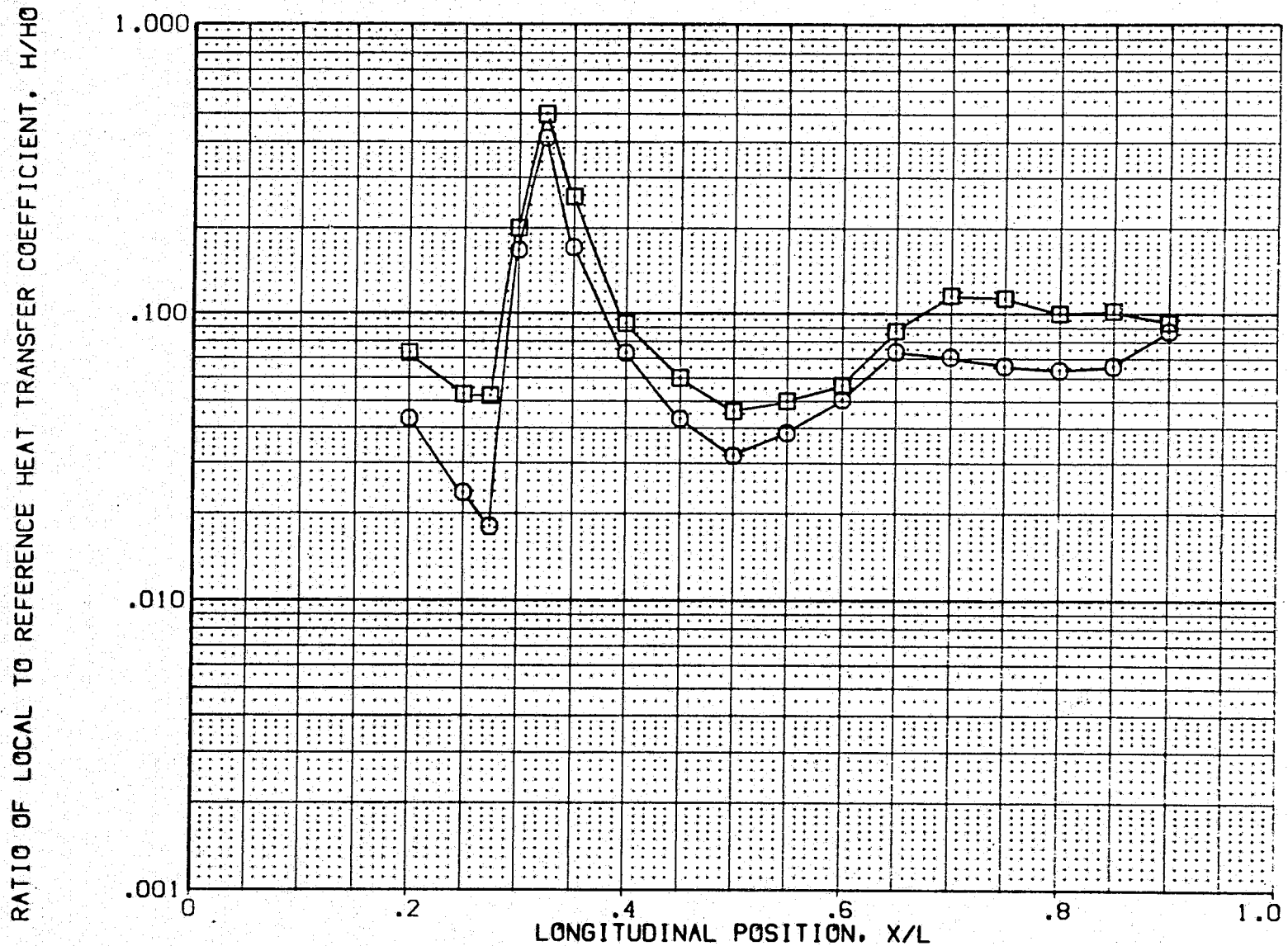


FIG. 23 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENT04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT05) □	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	5.000

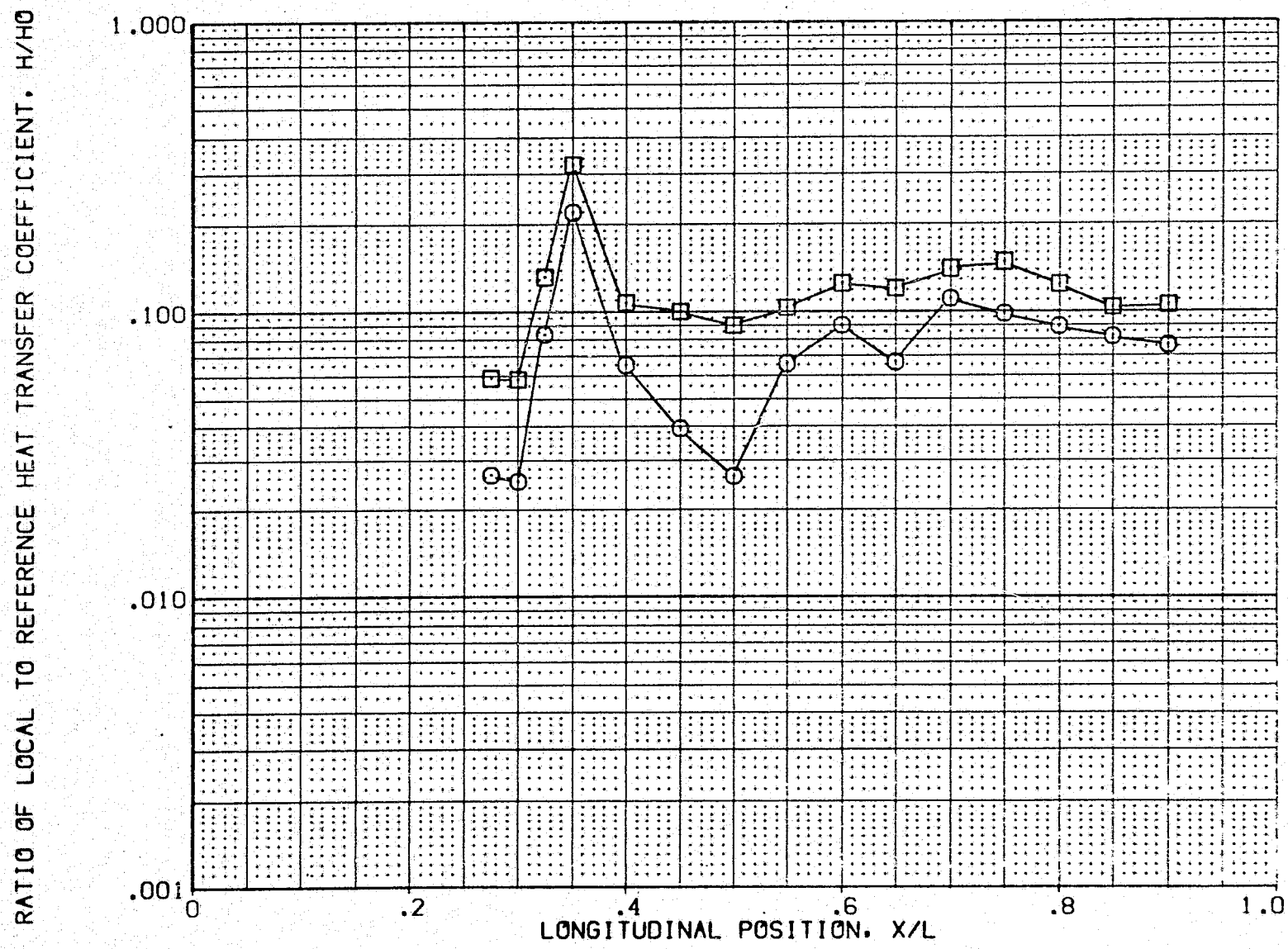


FIG. 23 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 112.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(REN304) ○	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	1.500
(REN305) □	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	5.000

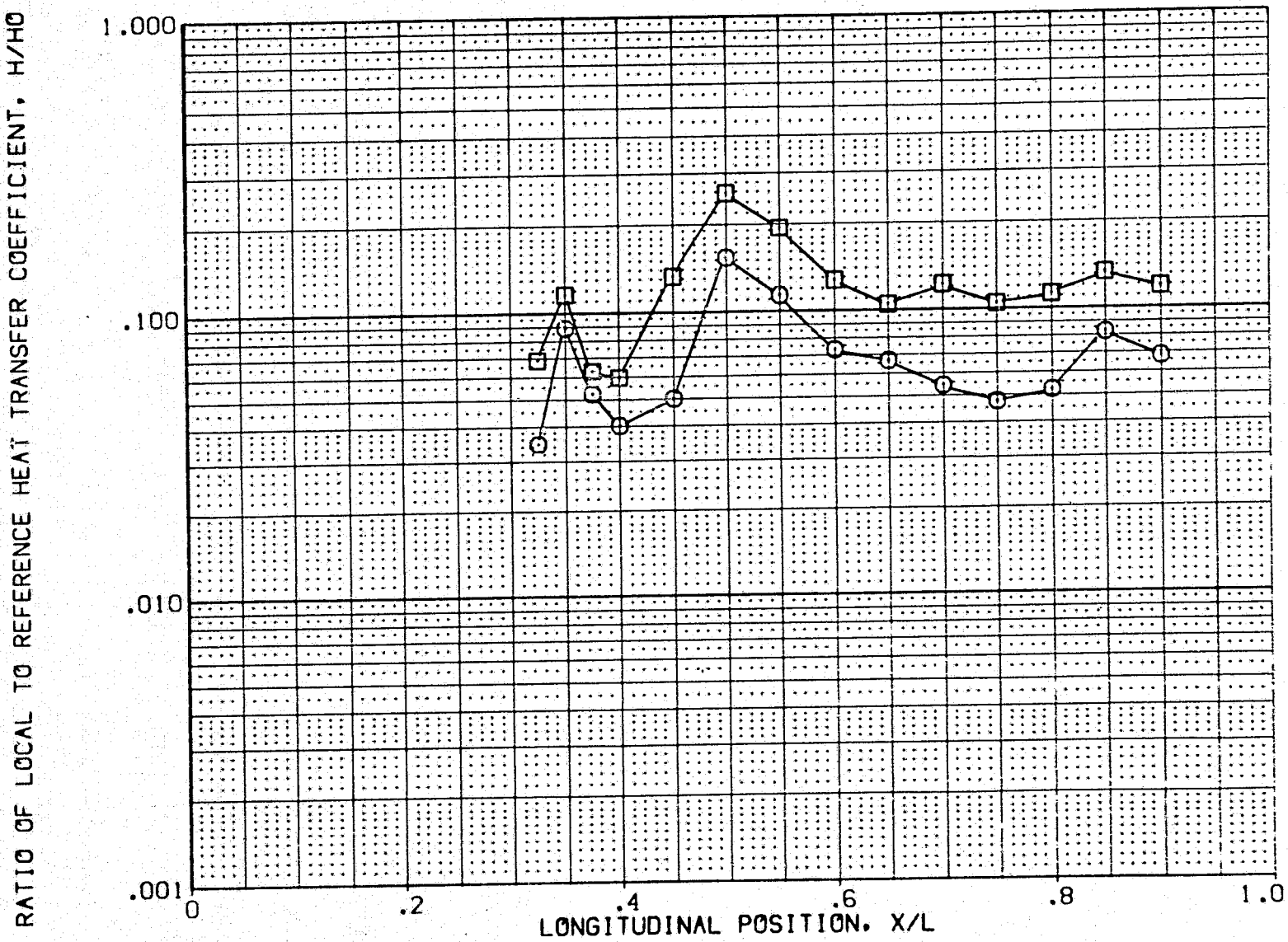


FIG. 23 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 135.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENT04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT05) □	ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK	-5.000	.000	5.300	5.000

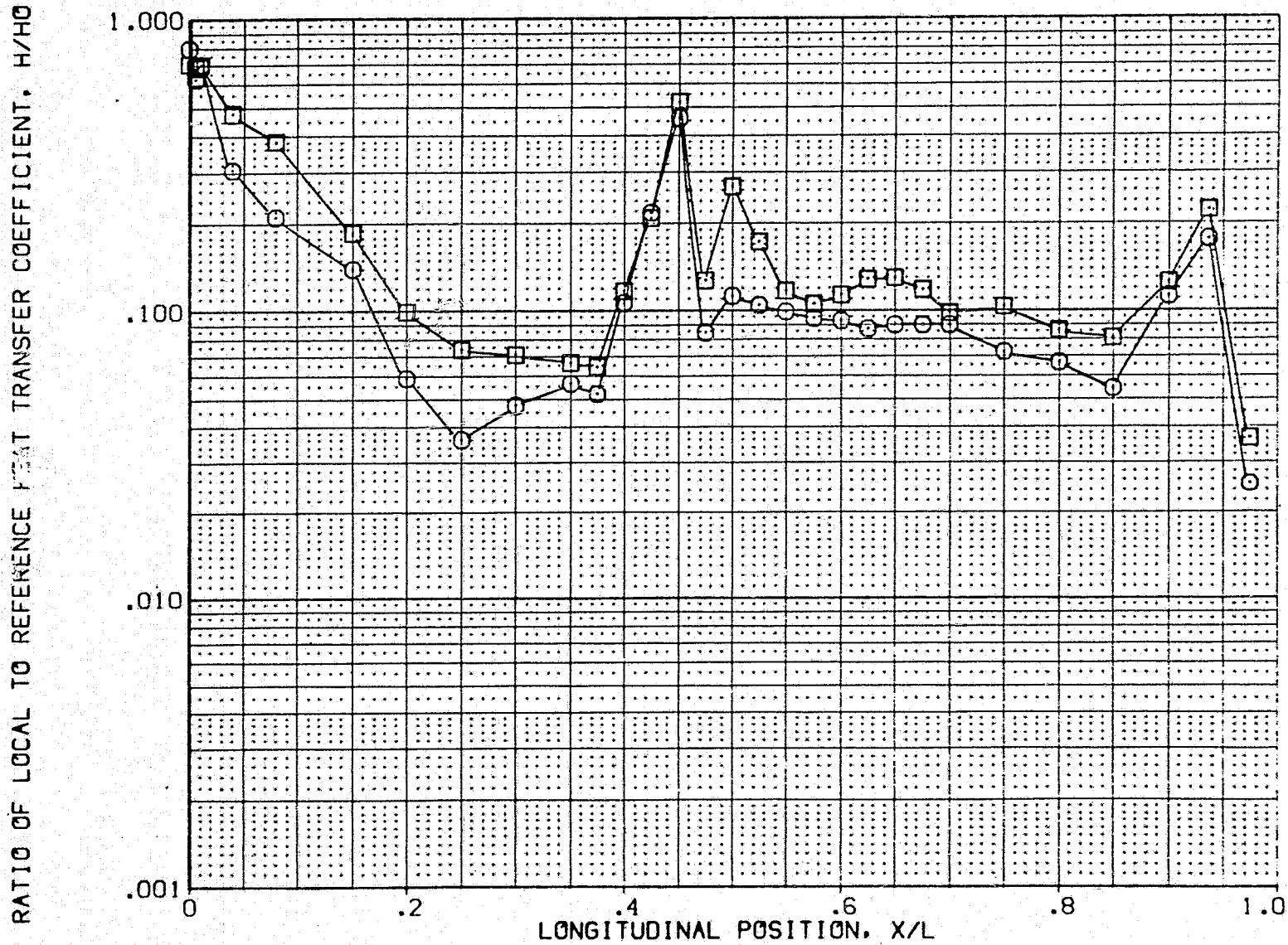


FIG. 23 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENS04) ○	ARC 3.5-185 1H20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS05) □	ARC 3.5-185 1H20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	5.000

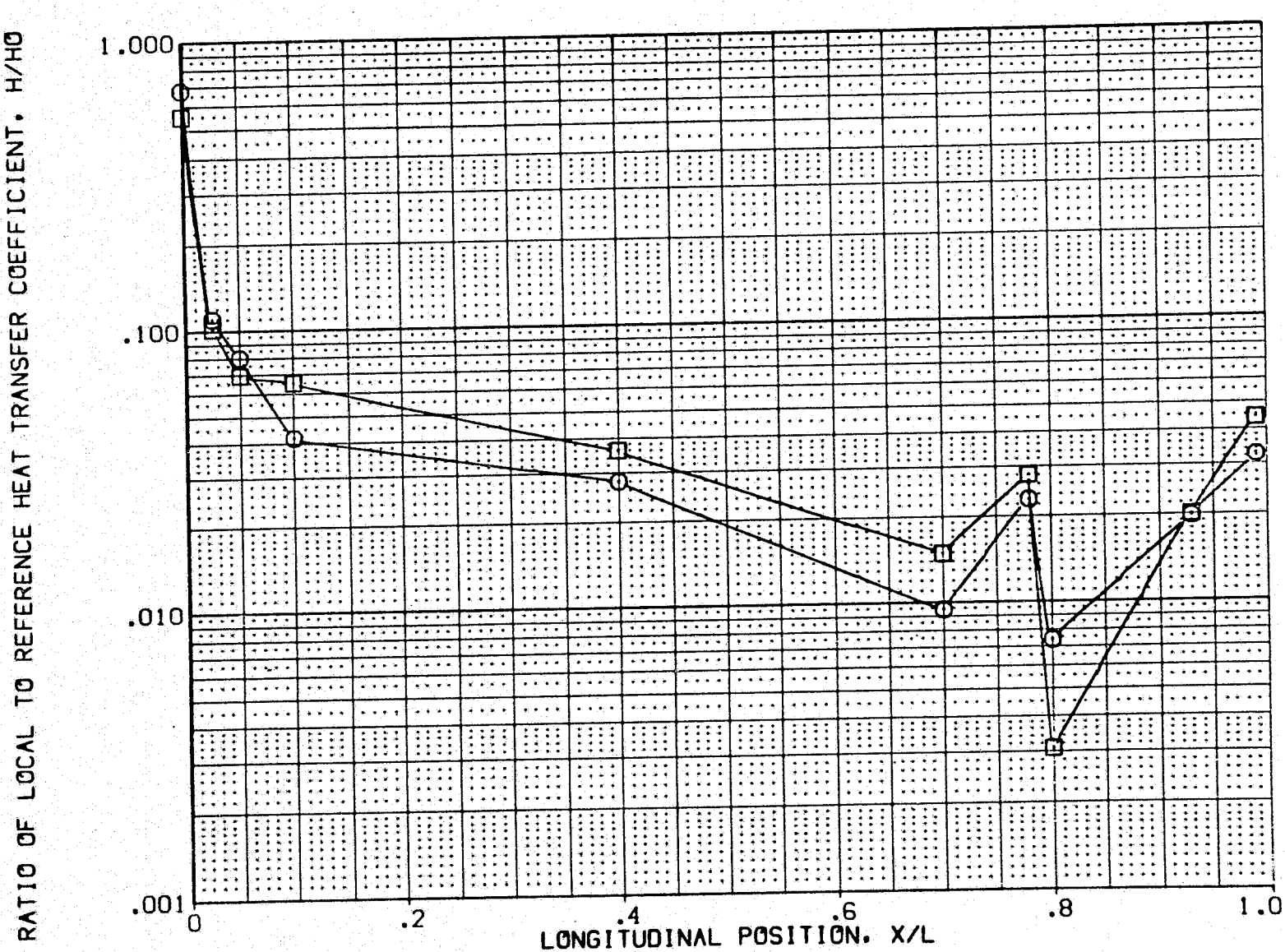


FIG. 24 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 90.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENS04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	5.000

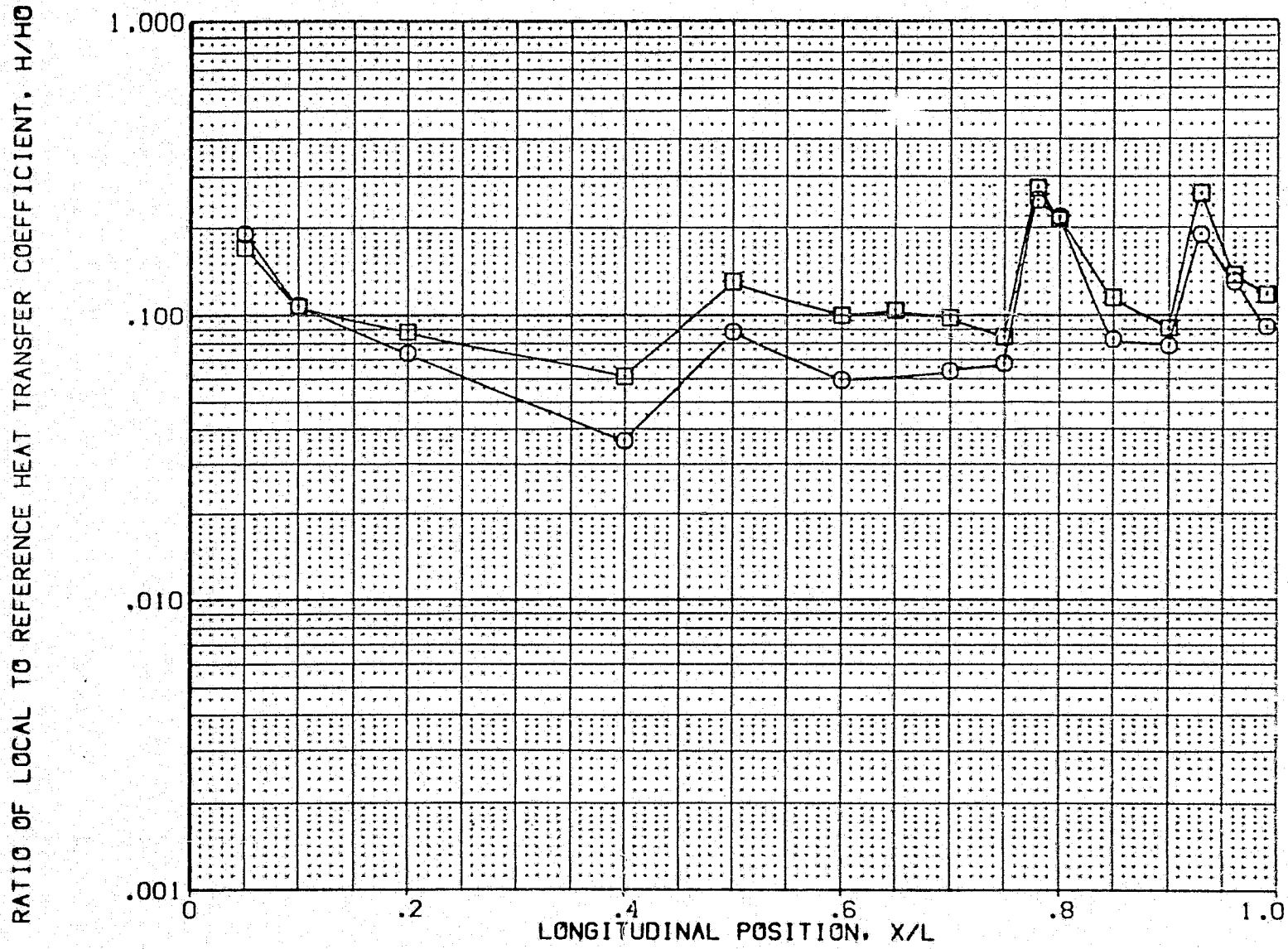


FIG. 24 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENS04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	5.000

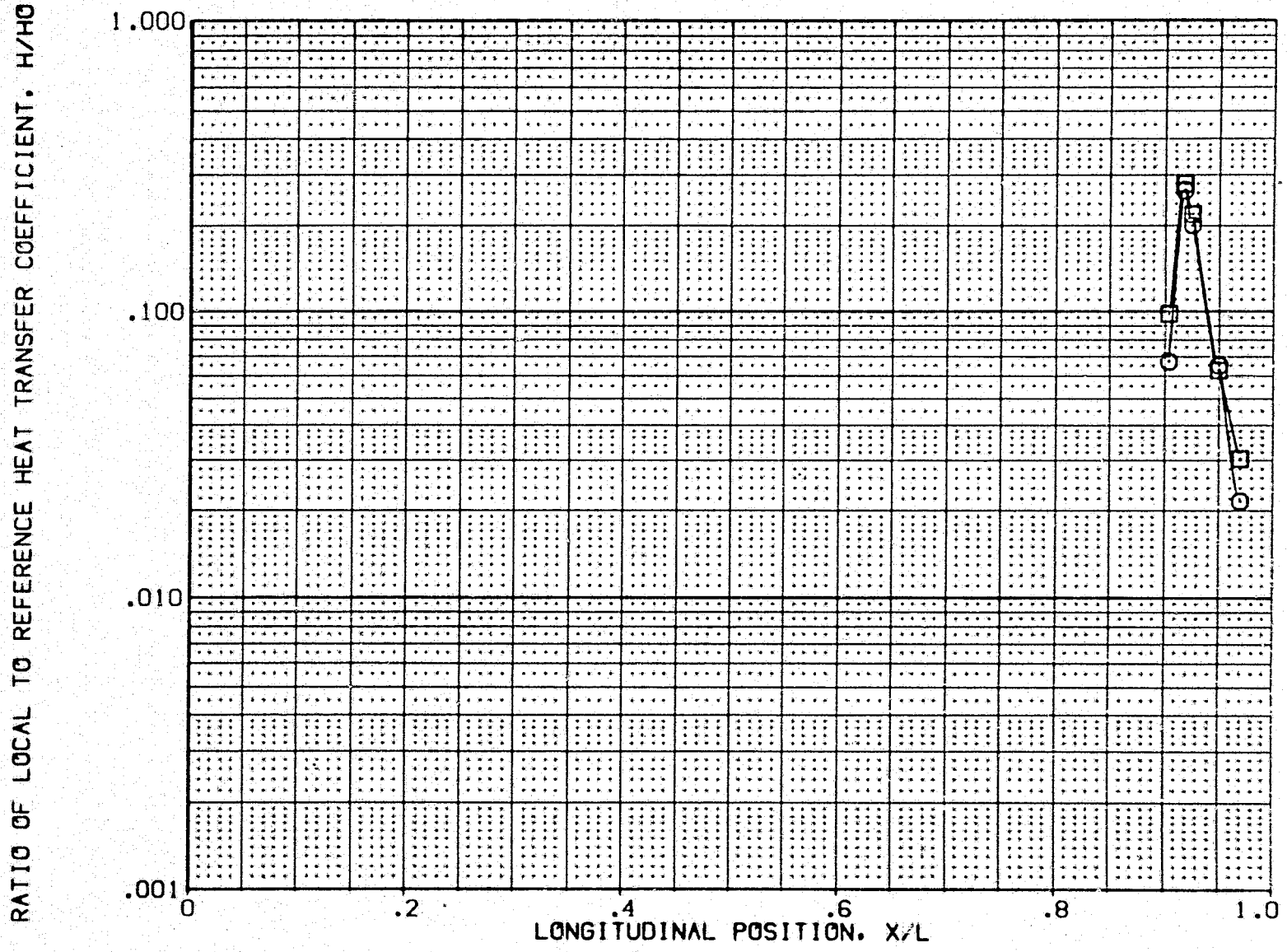


FIG. 24 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 210.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENS04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	5.000

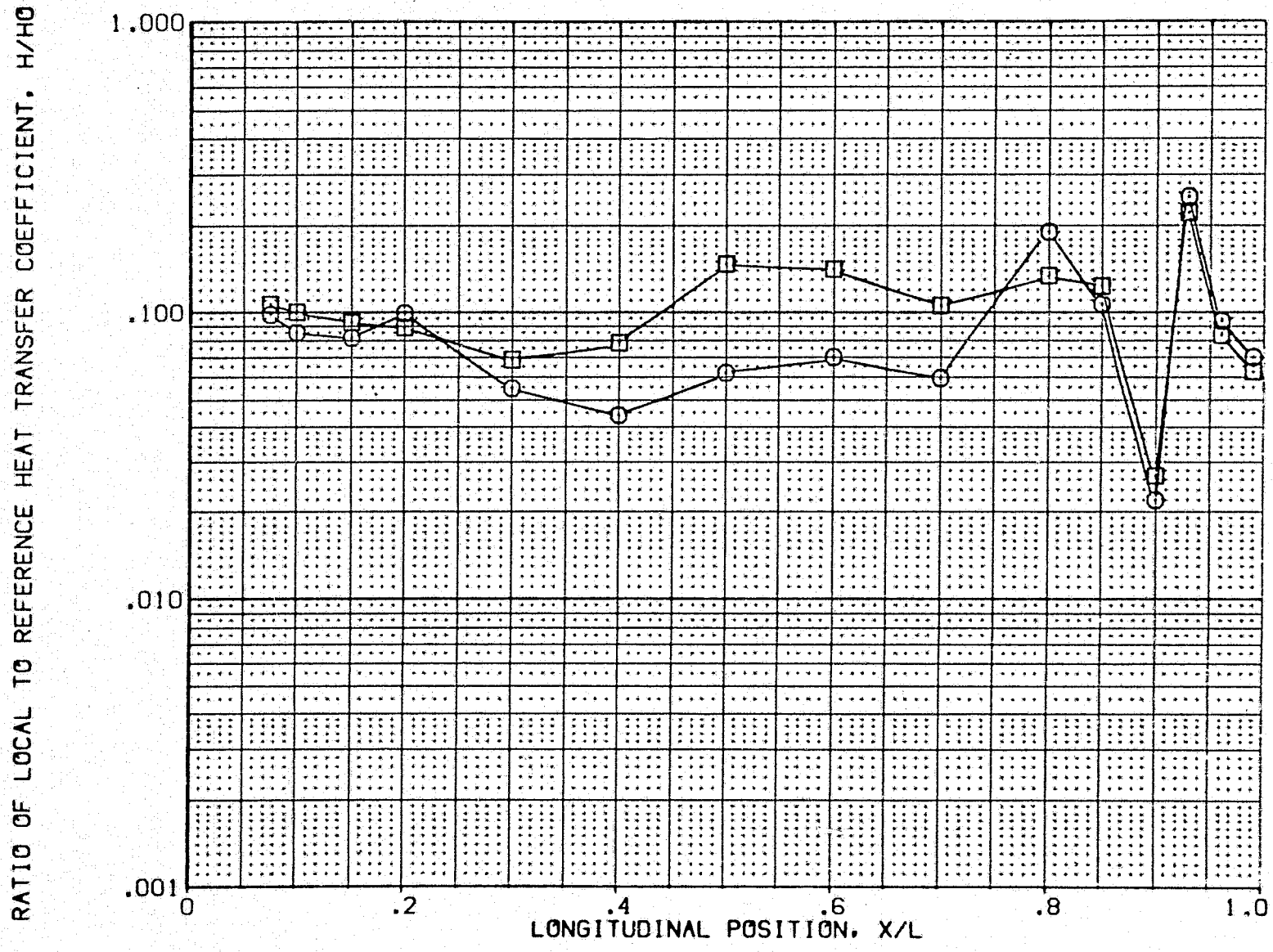


FIG. 24 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 225.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENS04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS05) □	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	5.000

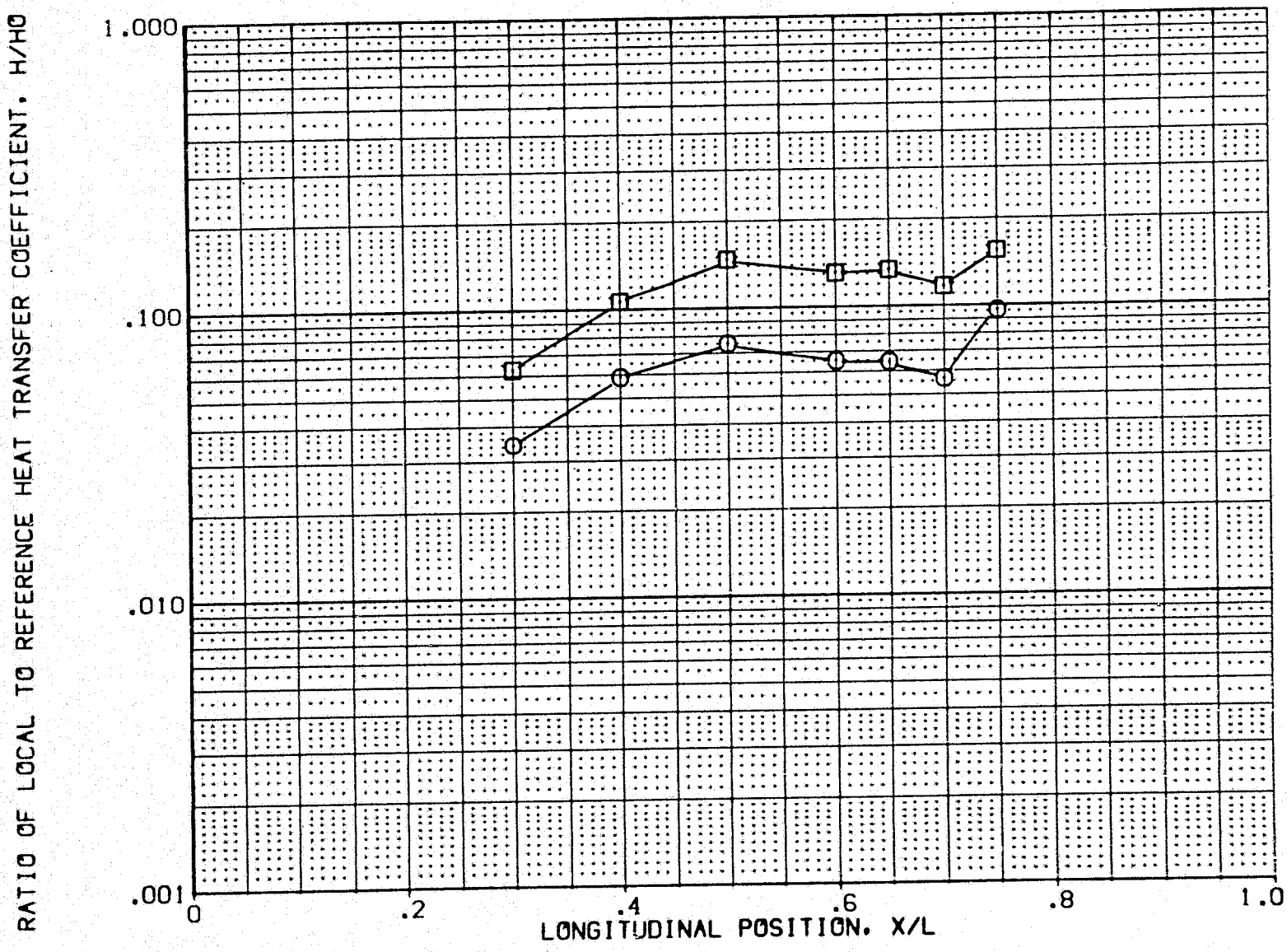


FIG. 24 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 247.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENSO4) ○	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENSO5) □	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	5.000



FIG. 24 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 270.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENS04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS05) □	ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER	-5.000	.000	5.300	5.000

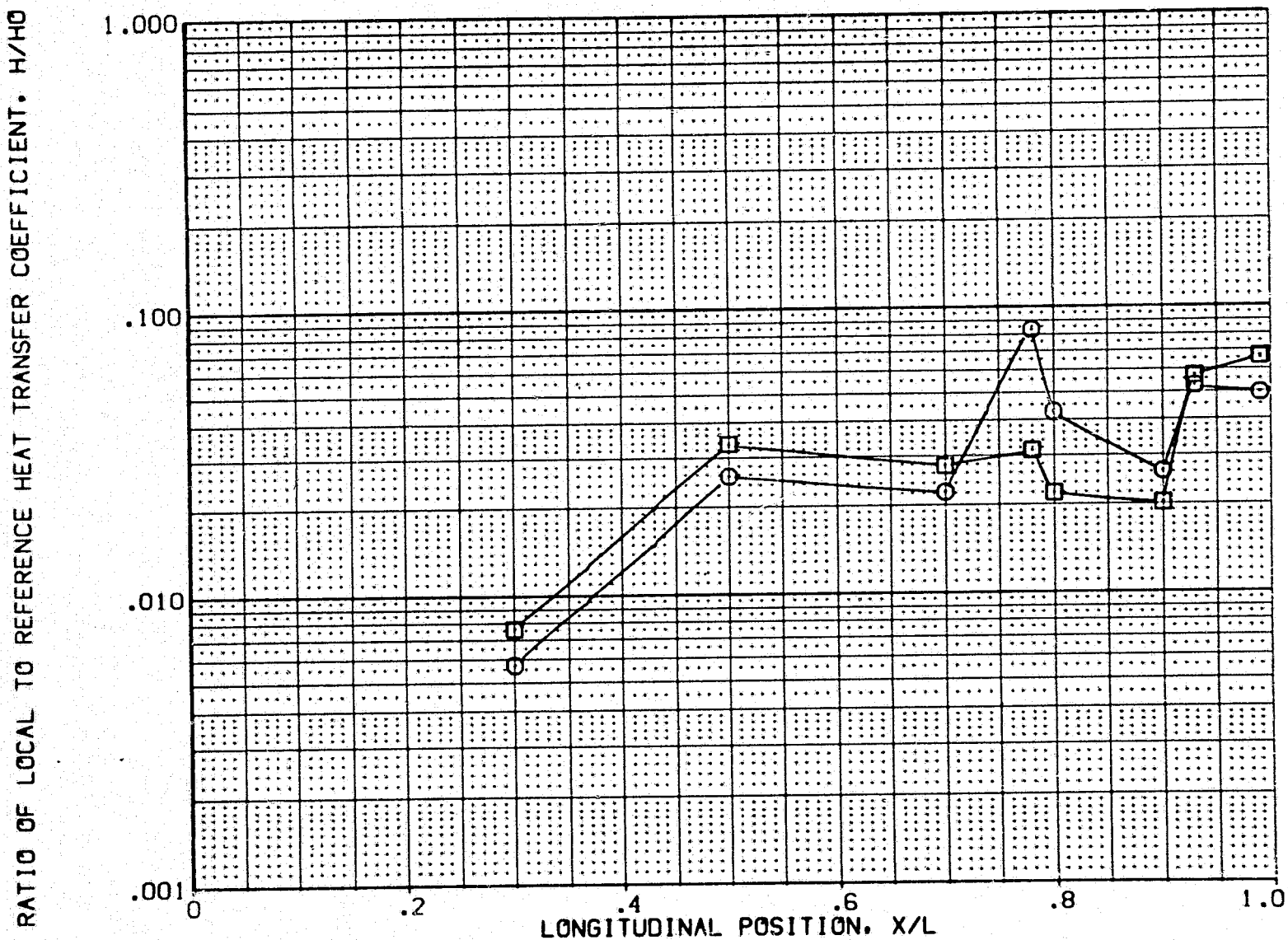


FIG. 24 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 315.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENA04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=0.0	-5.000	.000	5.300	1.500
(RENA05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=0.0	-5.000	.000	5.300	5.000

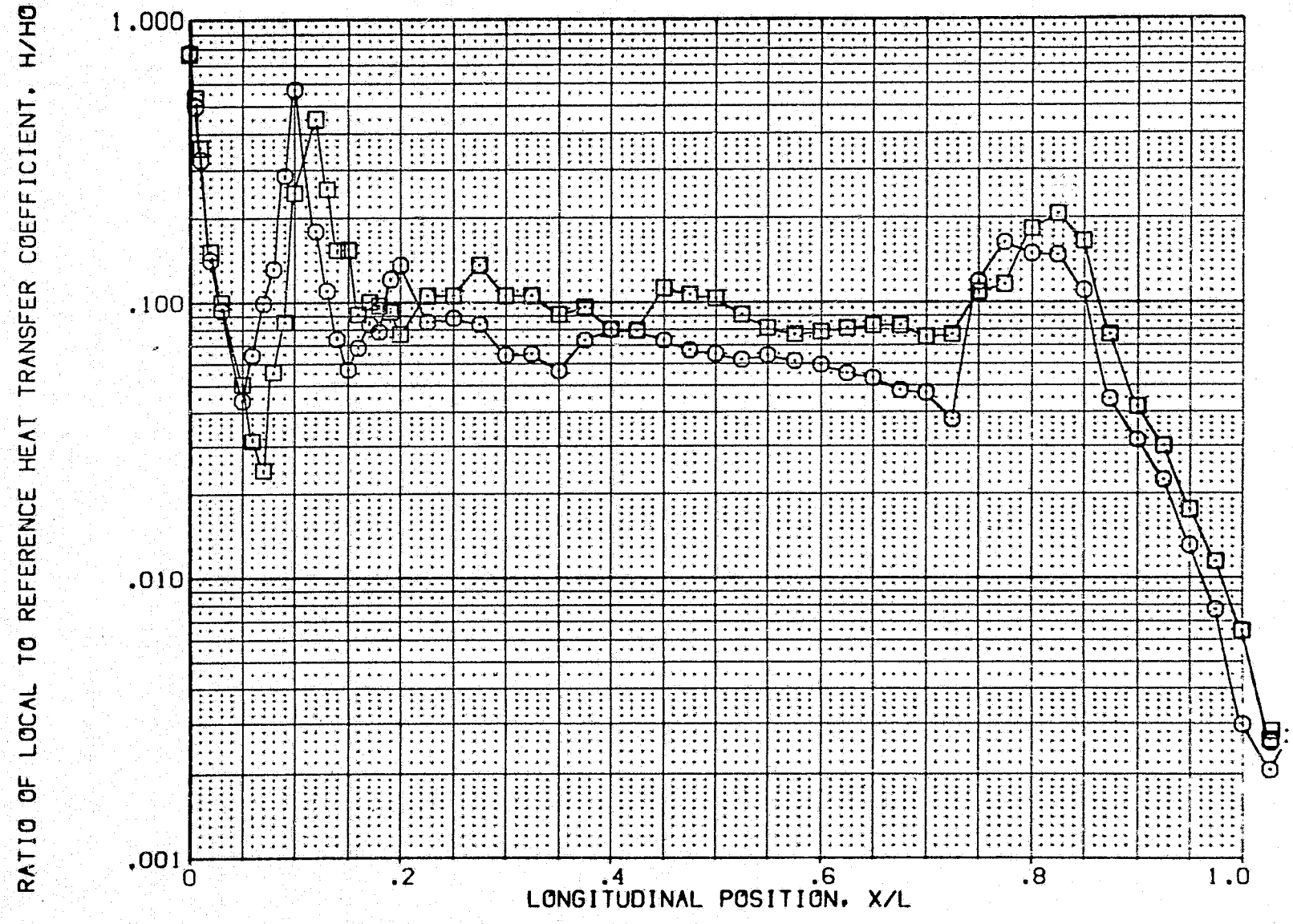


FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 PHI = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENC04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 ORB Y=0.875	-5.000	.000	5.300	1.500
(RENC05) □	ARC 3.5-185 IH20 01+T15+S8+X28 ORB Y=0.875	-5.000	.000	5.300	5.000

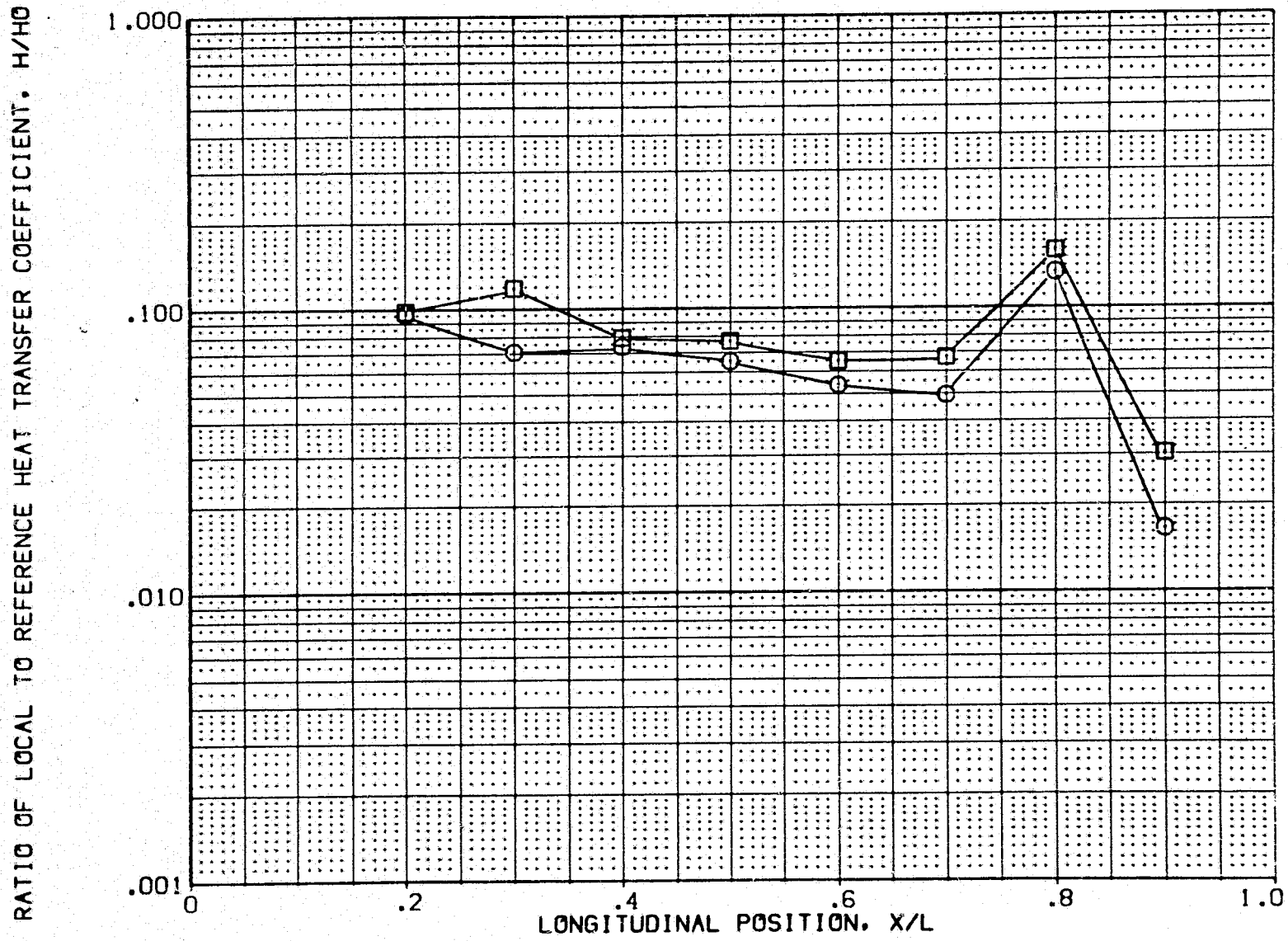


FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Y = .875

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENH04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=7.525	-5.000	.000	5.300	1.500
(RENH05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=7.525	-5.000	.000	5.300	5.000

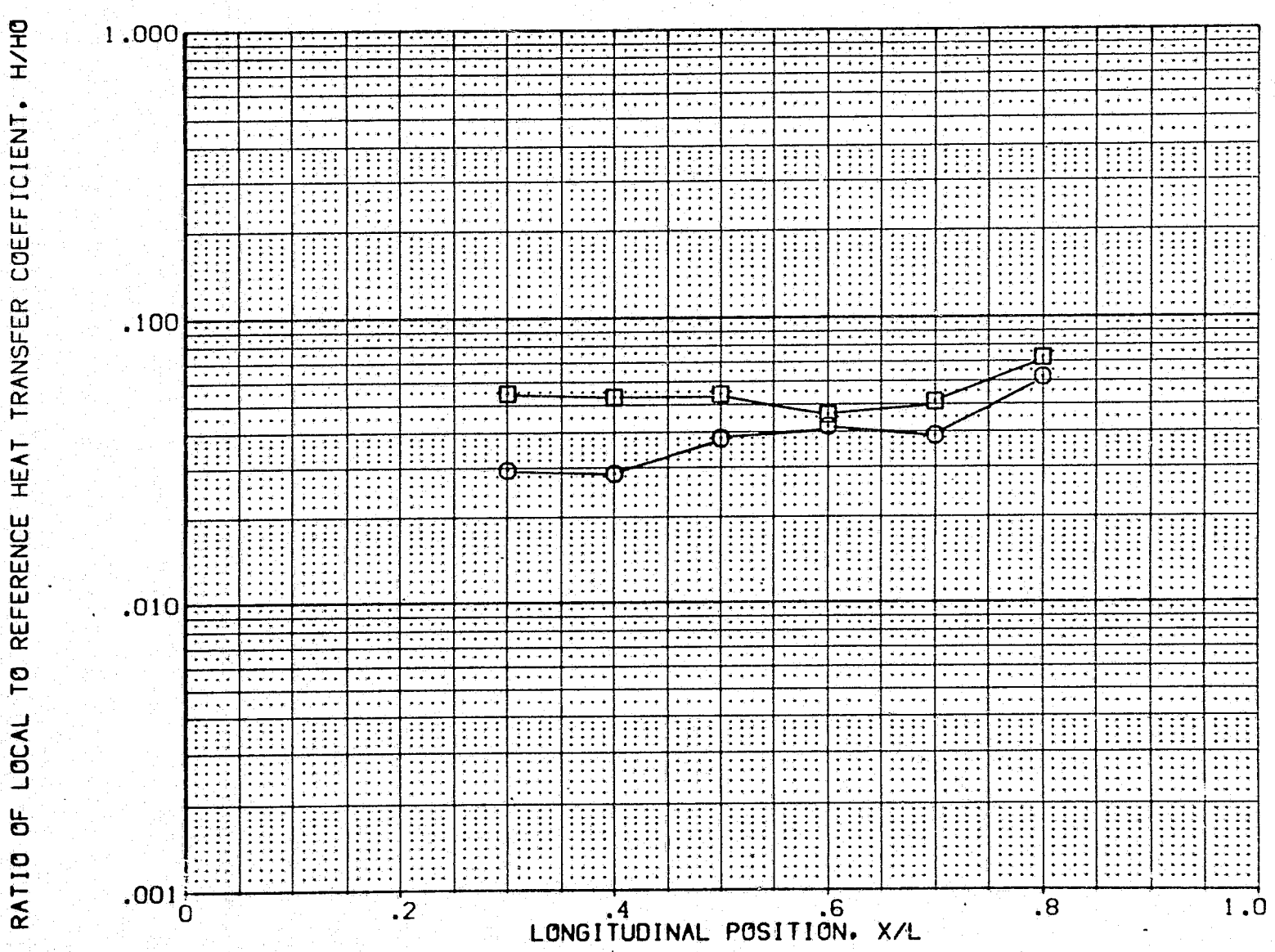


FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.525

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(REN104)	○	ARC 3.5-185 IH20 01+T15+S8+X28 ORB WINDOWS	-5.000	.000	5.300	1.500
(REN105)	□	ARC 3.5-185 IH20 01+T15+S8+X28 ORB WINDOWS	-5.000	.000	5.300	5.000

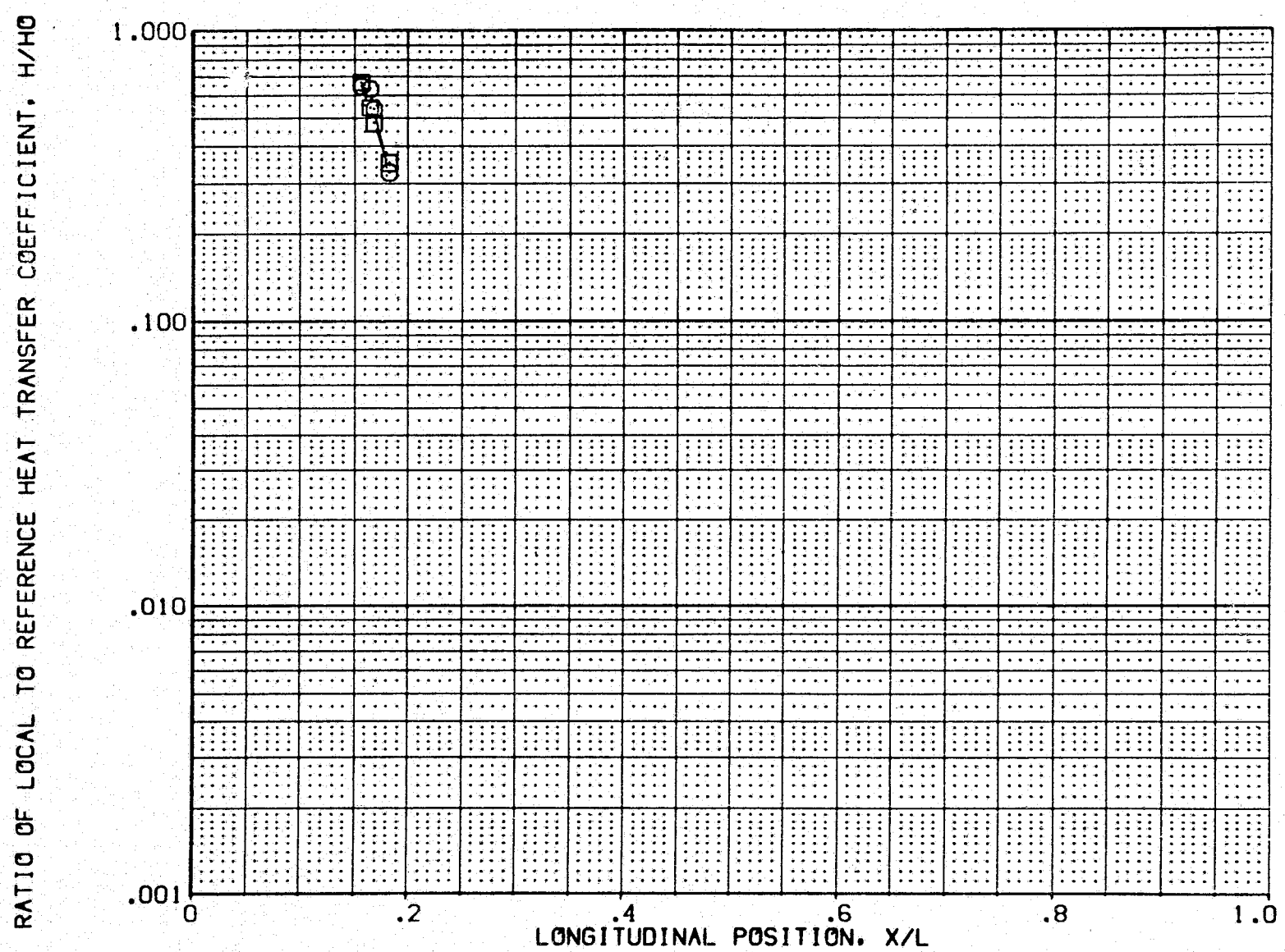


FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.910

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(REN104) ○	ARC 3.5-185 IH20 01+T15+S8+X28 ORB WINDOWS	-5.000	.000	5.300	1.500
(REN105) □	ARC 3.5-185 IH20 01+T15+S8+X28 ORB WINDOWS	-5.000	.000	5.300	5.000

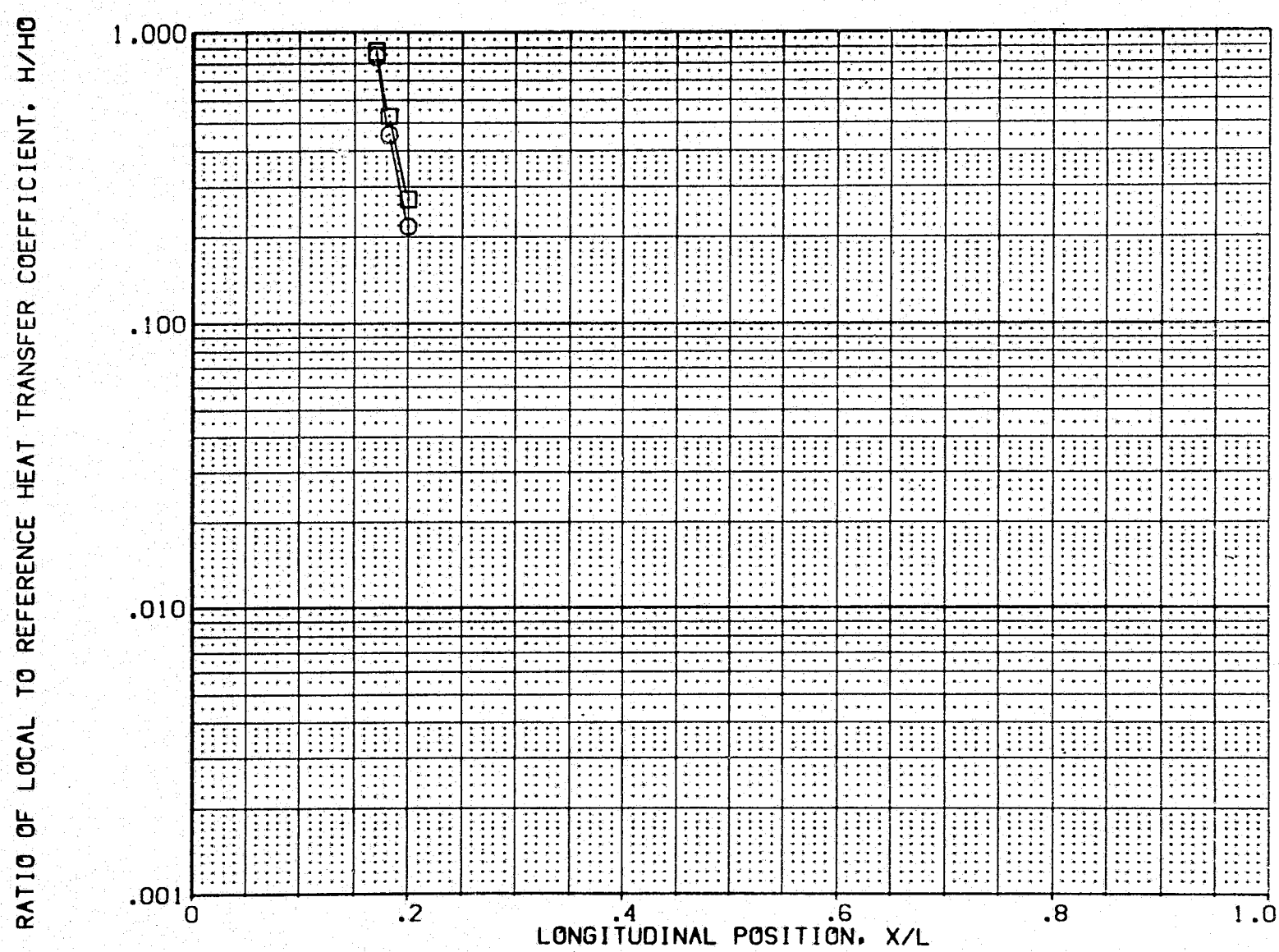


FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.137

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENI04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 ORB WINDOWS	-5.000	.000	5.300	1.500
(RENI05) □	ARC 3.5-185 IH20 01+T15+S8+X28 ORB WINDOWS	-5.000	.000	5.300	5.000

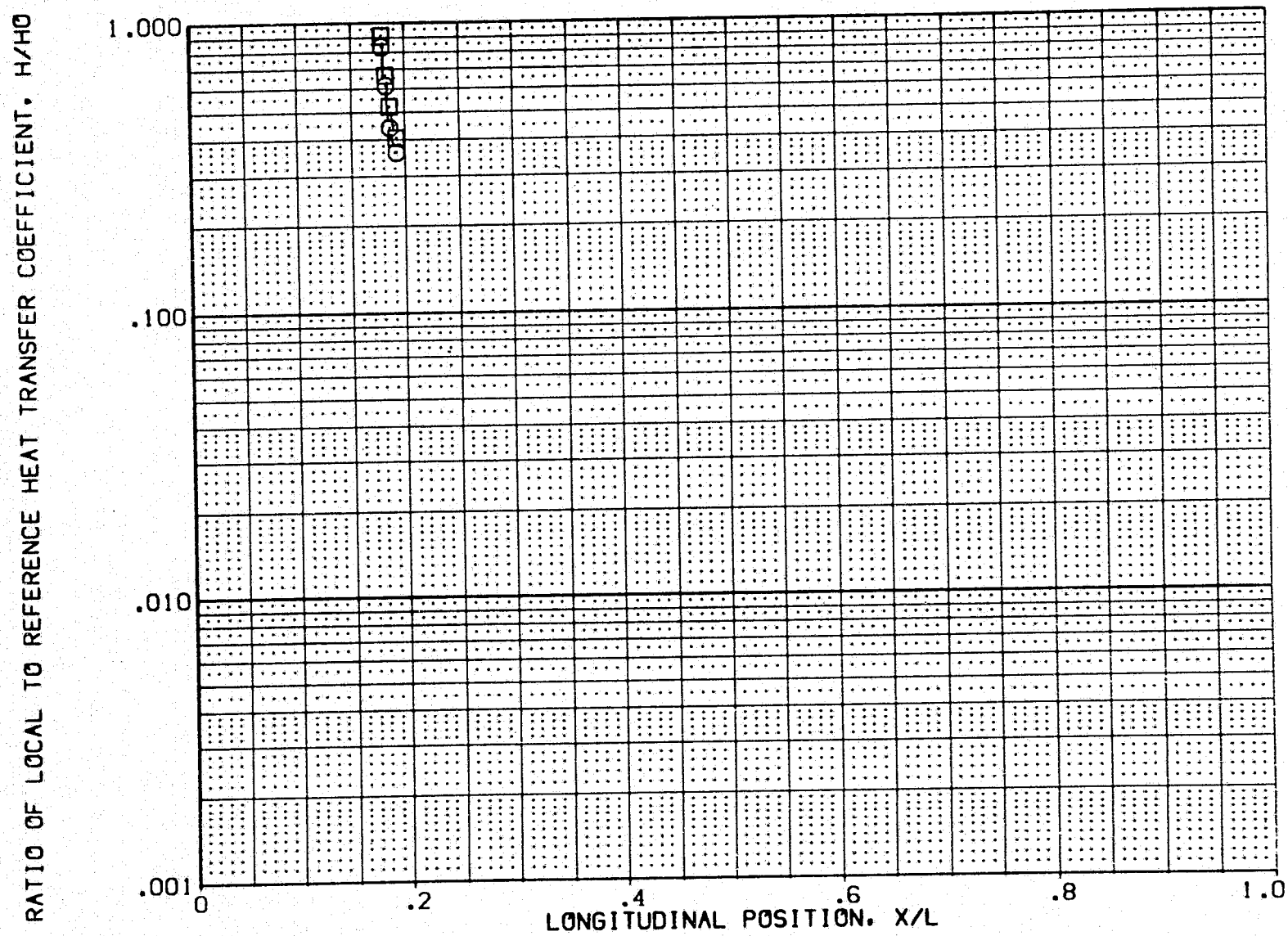


FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.365

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENM04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=8.295	-5.000	.000	5.300	1.500
(RENM05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=8.295	-5.000	.000	5.300	5.000

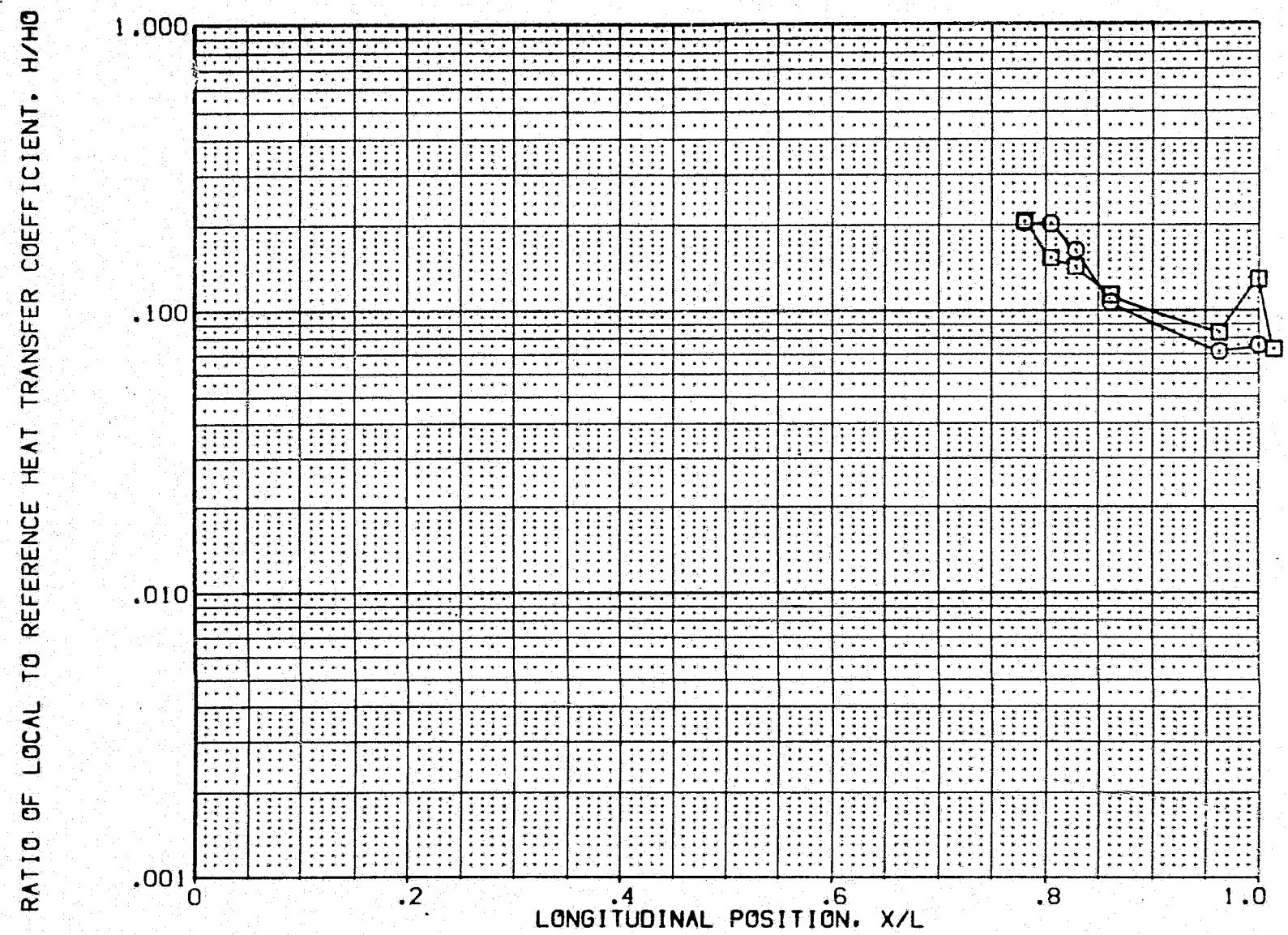


FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.295

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENJ04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=8.379	-5.000	.000	5.300	1.500
(RENJ05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=8.379	-5.000	.000	5.300	5.000

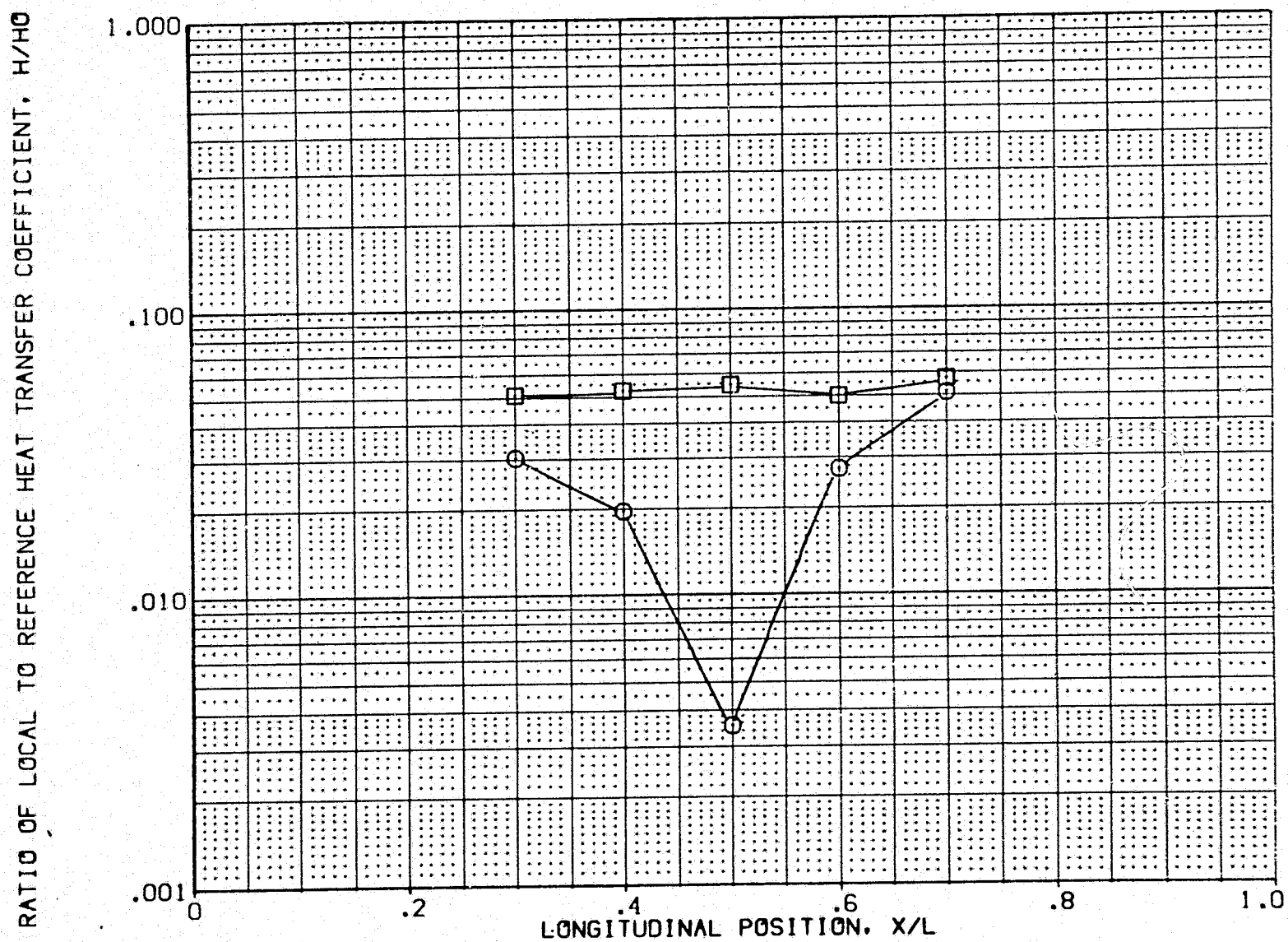


FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.379

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(REN004) ○	ARC 3.5-18S IH20 01+T15+S8+X28 OMS TOP	-5.000	.000	5.300	1.500
(REN005) □	ARC 3.5-18S IH20 01+T15+S8+X28 OMS TOP	-5.000	.000	5.300	5.000

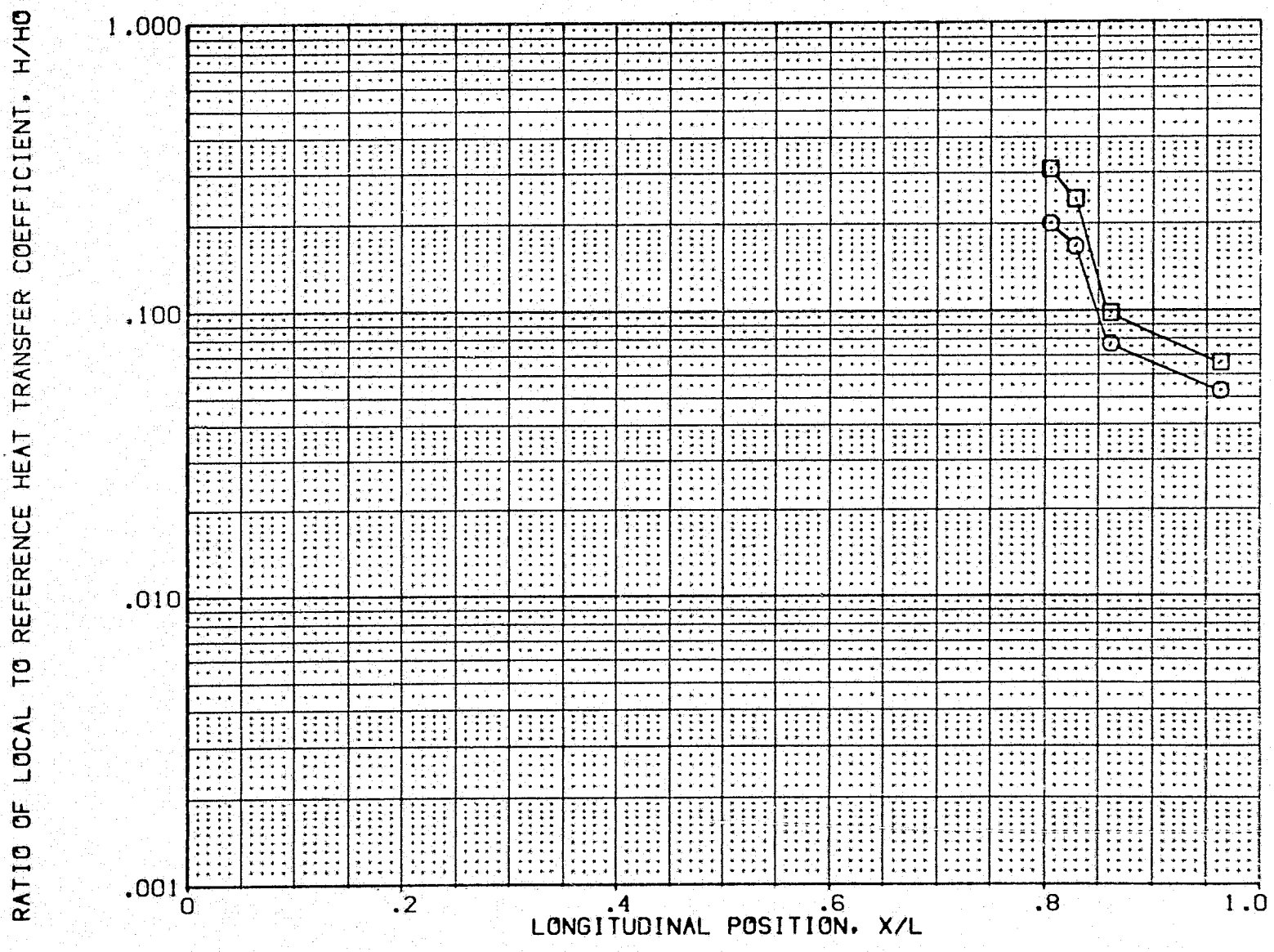


FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Y = 1.662

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENK04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=180	-5.000	.000	5.300	1.500
(RENK05) □	ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=180	-5.000	.000	5.300	5.000



FIG. 25 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 PHI = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENW04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW05) □	ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	5.000

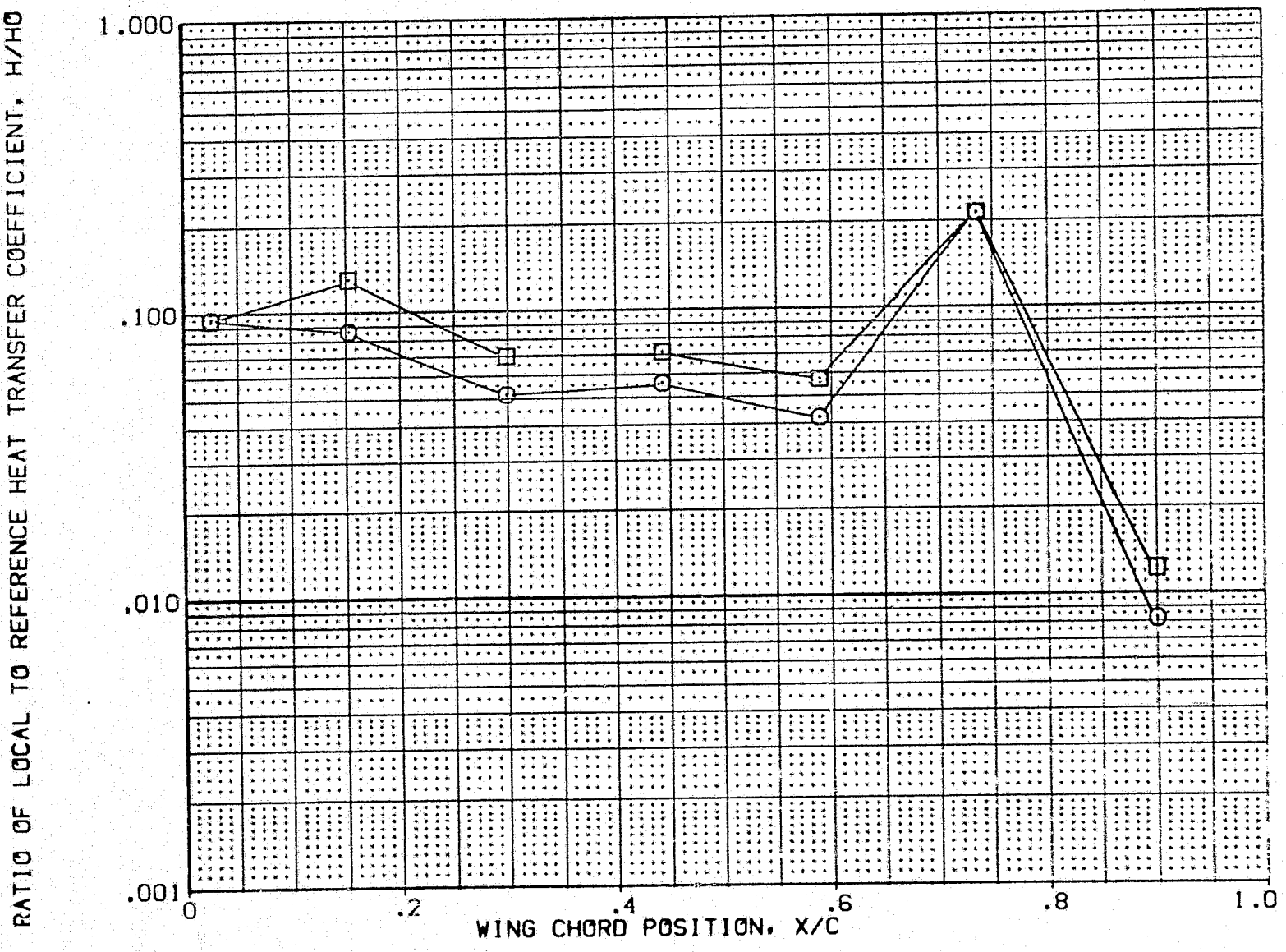


FIG. 26 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .250

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENV04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENV05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	5.000

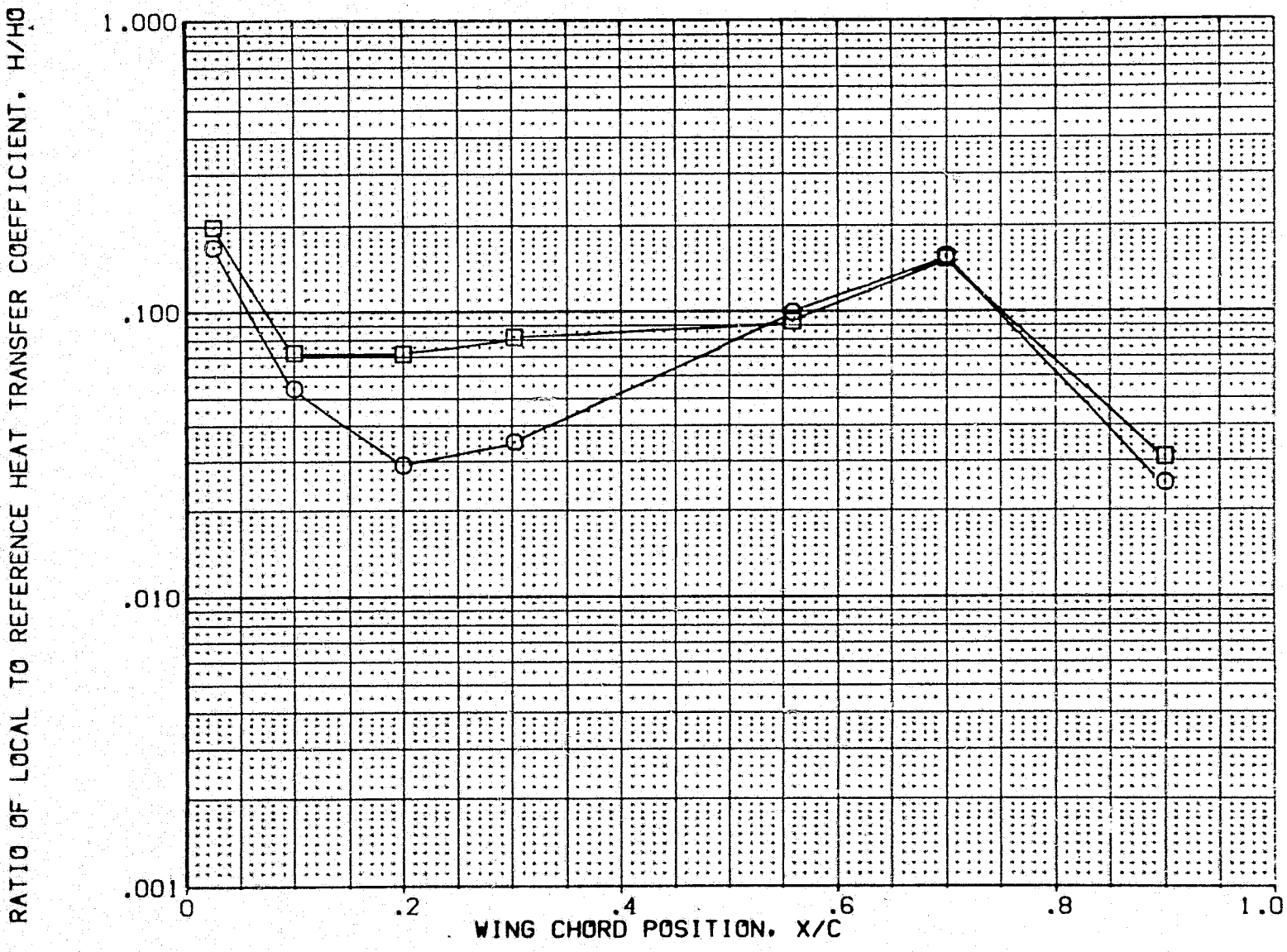


FIG. 26 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENW04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	5.000

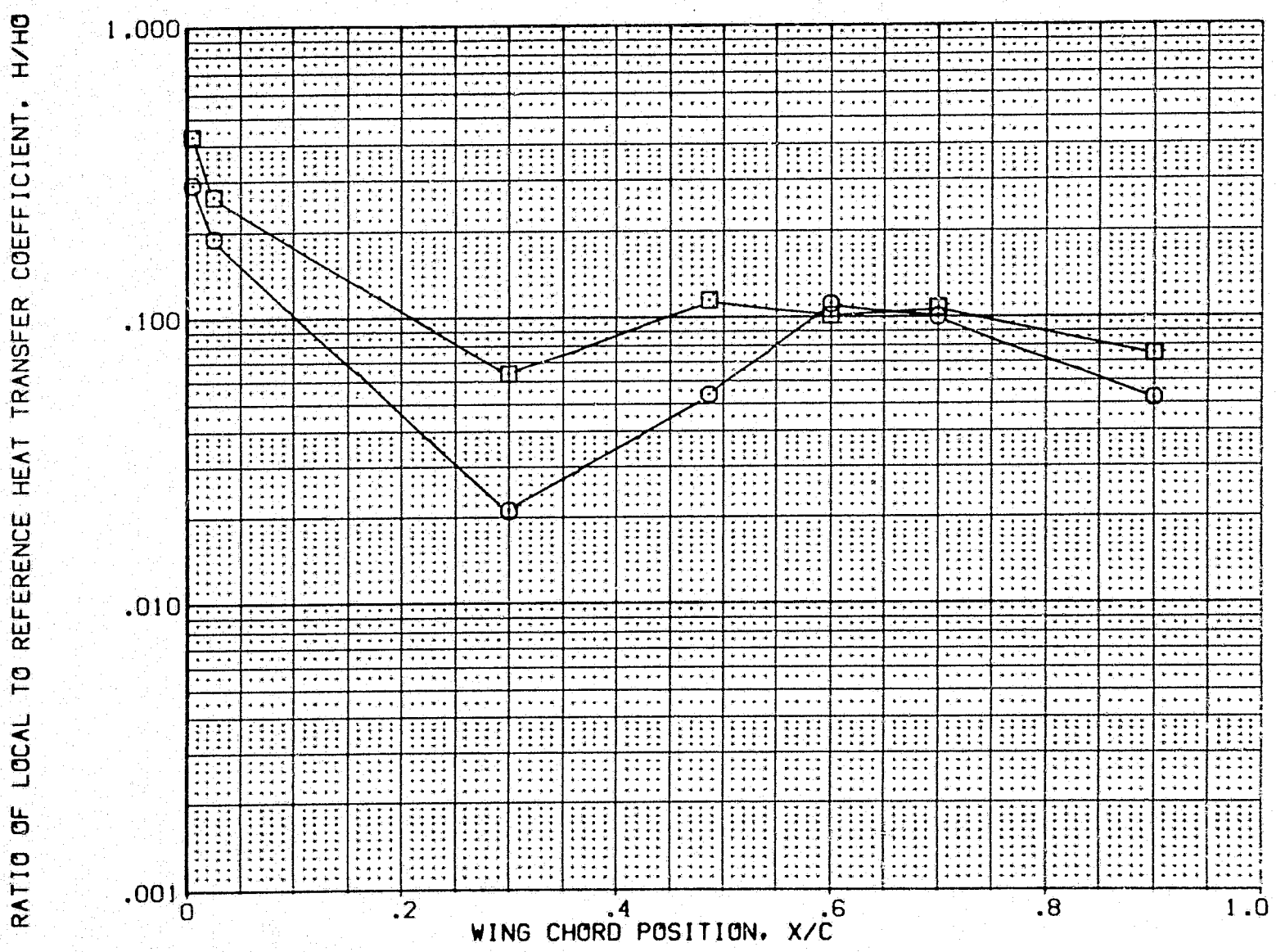


FIG. 26 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENW04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW05) □	ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	5.000

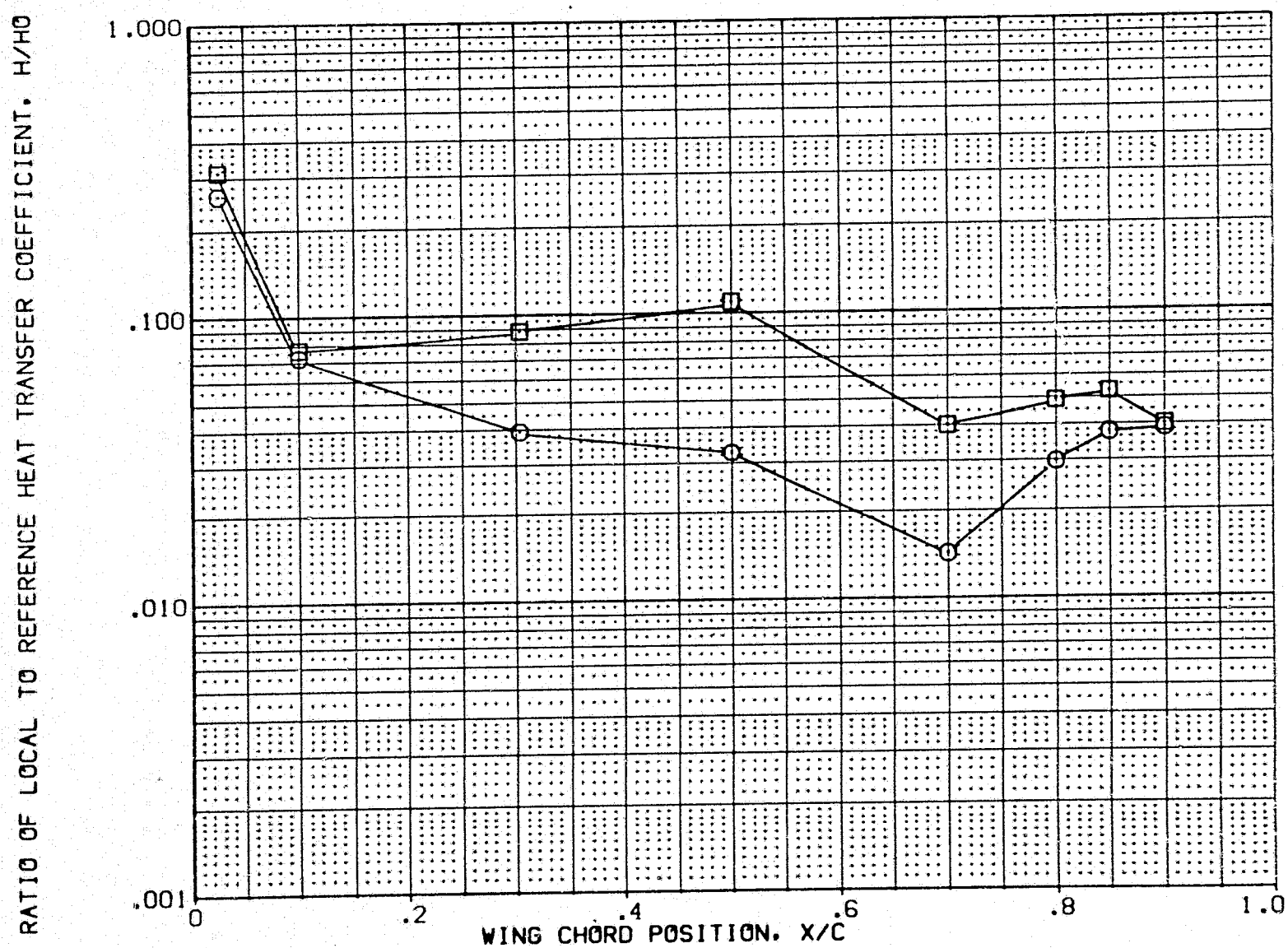


FIG. 26 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .750

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENW04) ○	ARC 3.5-185 1H20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW05) □	ARC 3.5-185 1H20 01+T15+S8+X28 WING BOTTOM SURF.	-5.000	.000	5.300	5.000

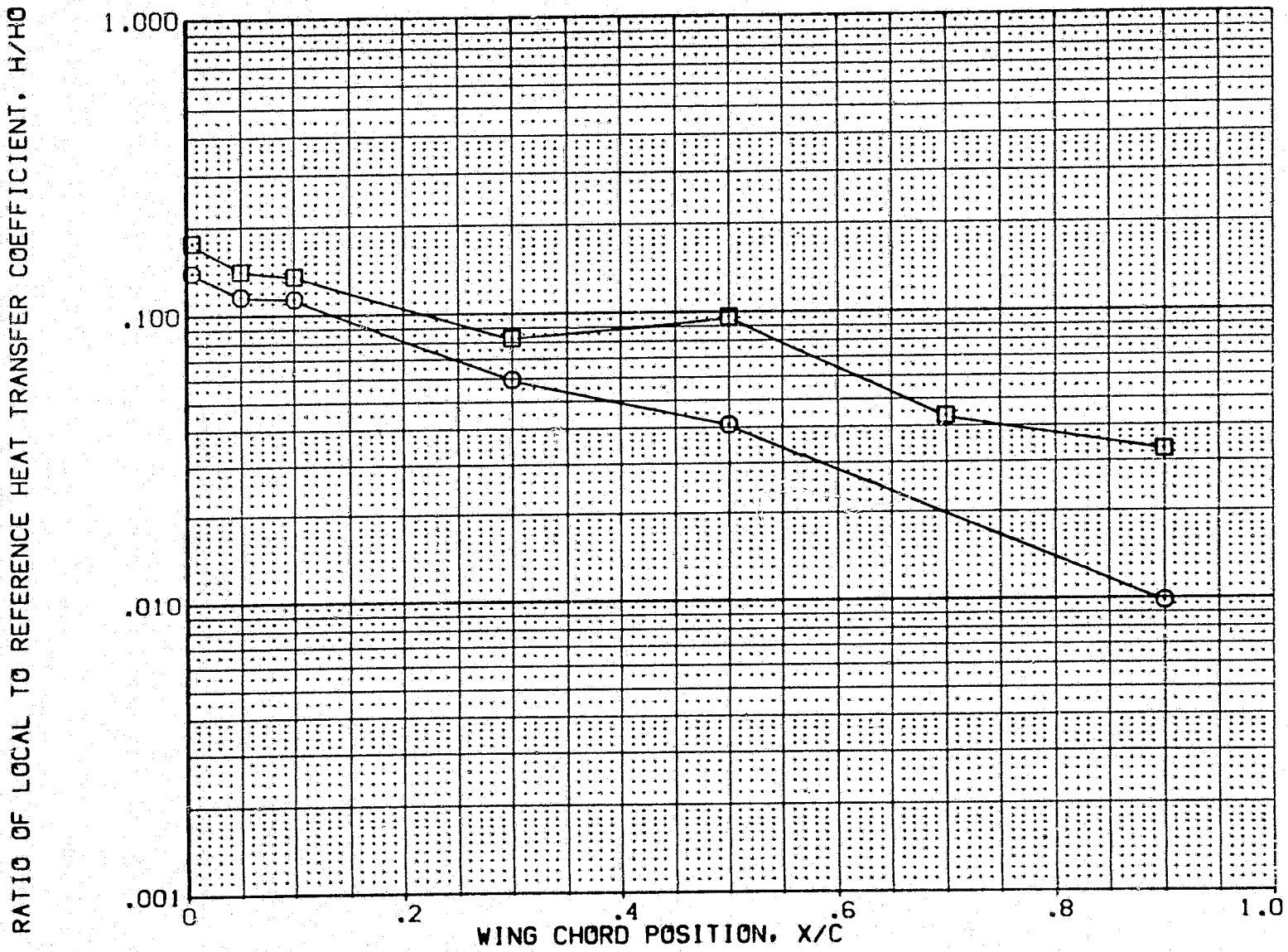


FIG. 26 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .950

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENX04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER SURF.	-5.000	.000	5.300	5.000

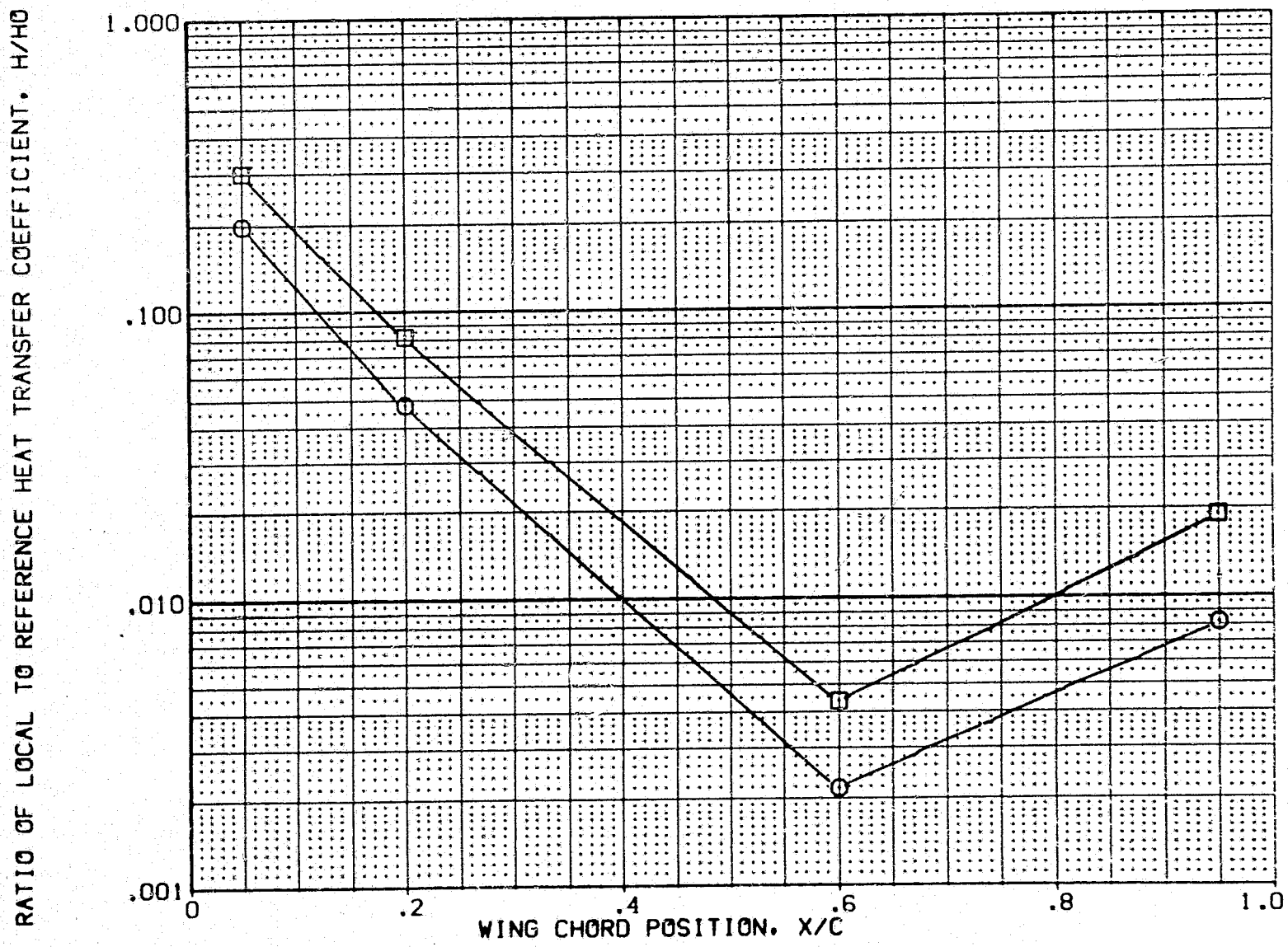


FIG. 26 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENX04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER SURF.	-5.000	.000	5.300	5.000

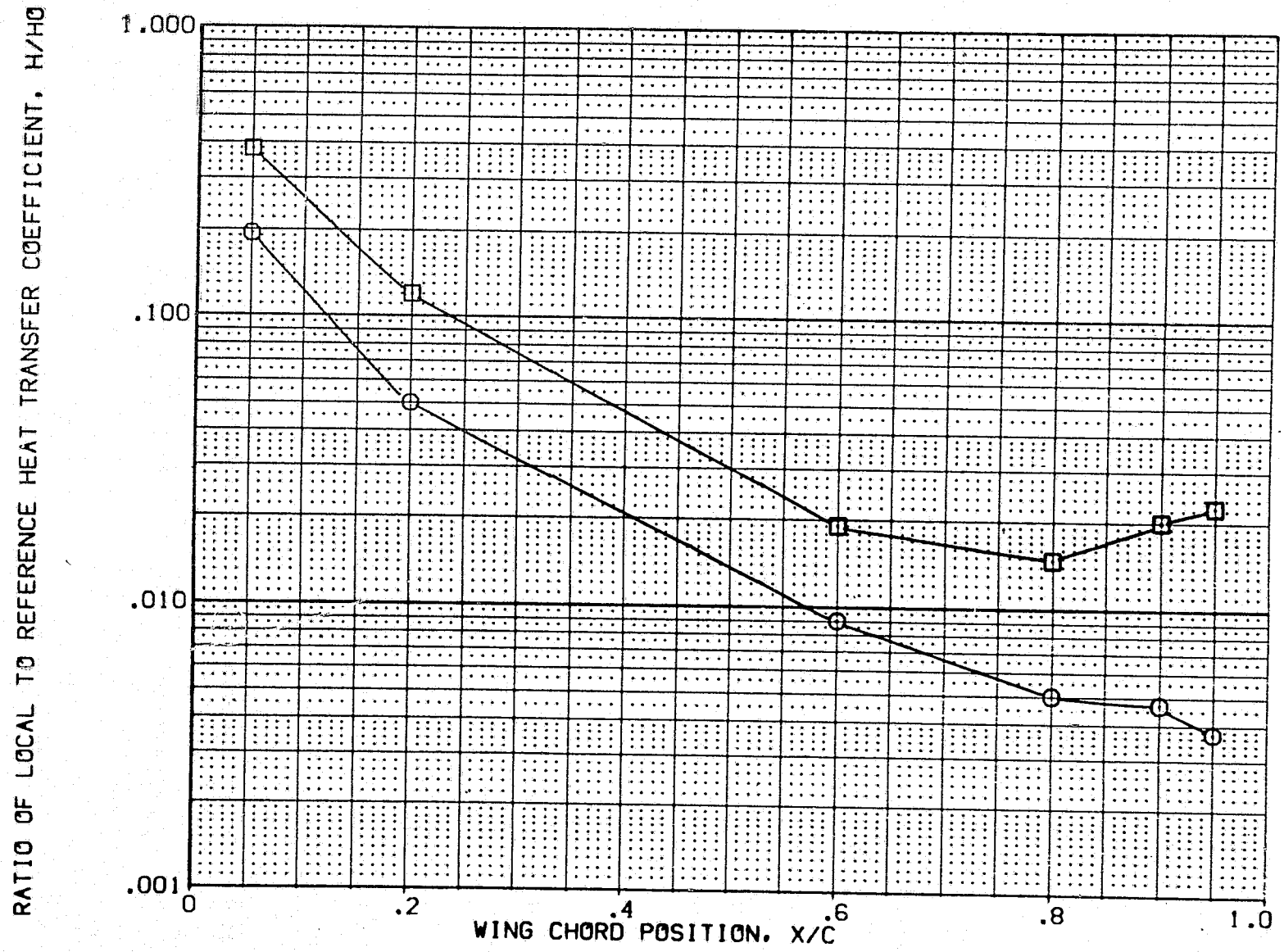


FIG. 26 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .600

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENX04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER SURF.	-5.000	.000	5.300	5.000

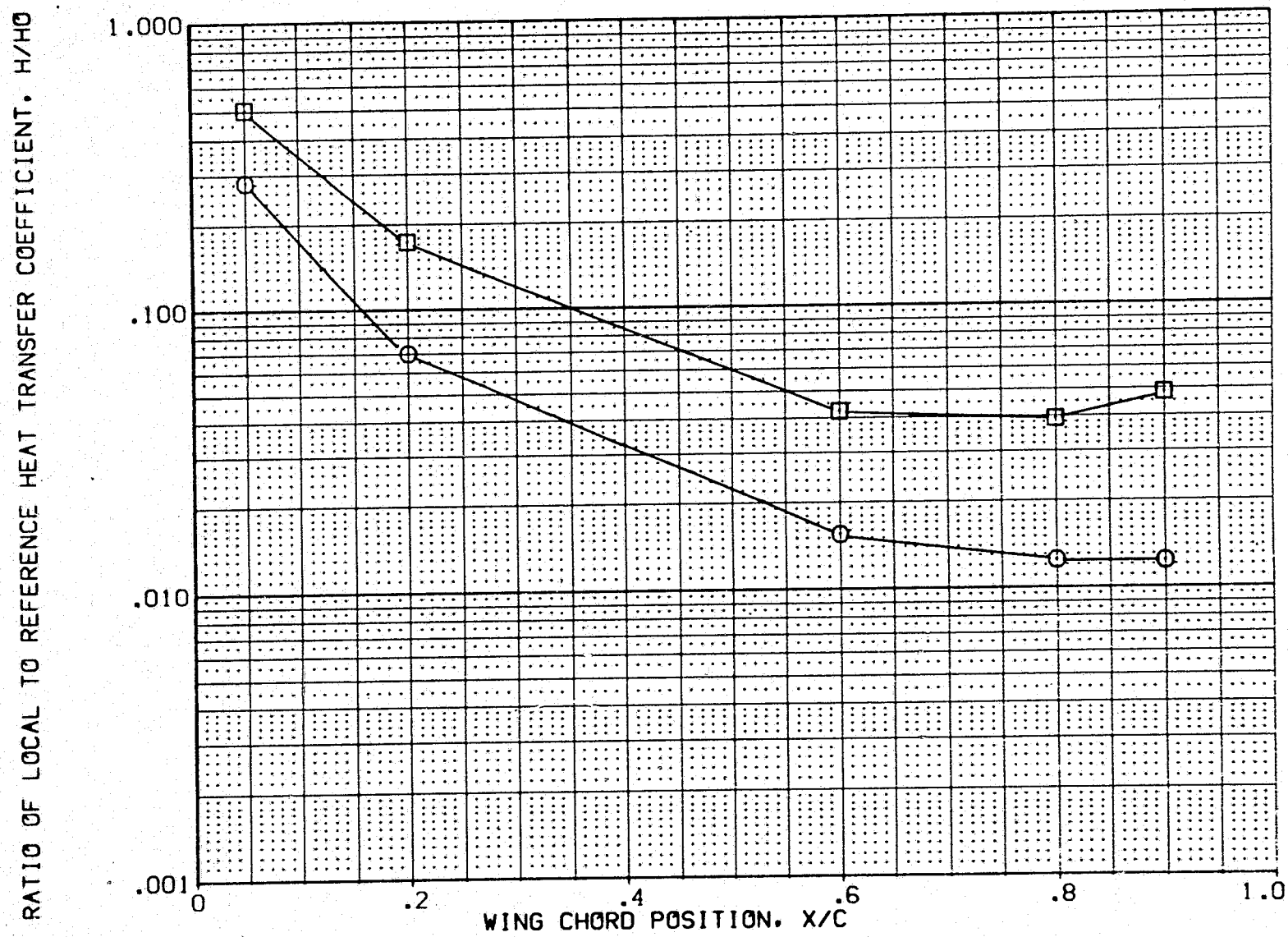


FIG. 26 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .800

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENV04) ○	ARC 3.5-18S IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV05) □	ARC 3.5-18S IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	5.000

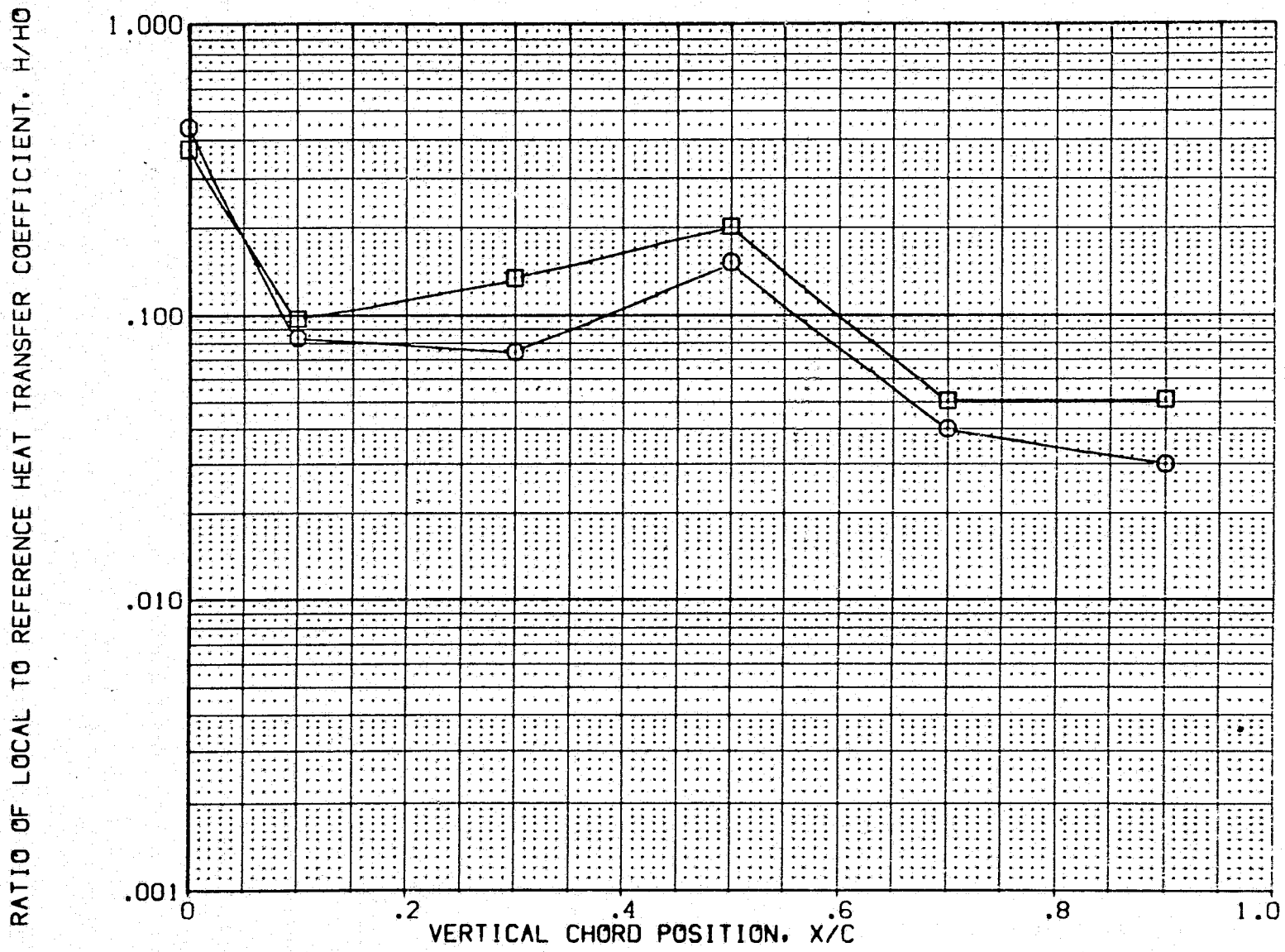


FIG. 27 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .299

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENV04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV05) □	ARC 3.5-185 IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	5.000

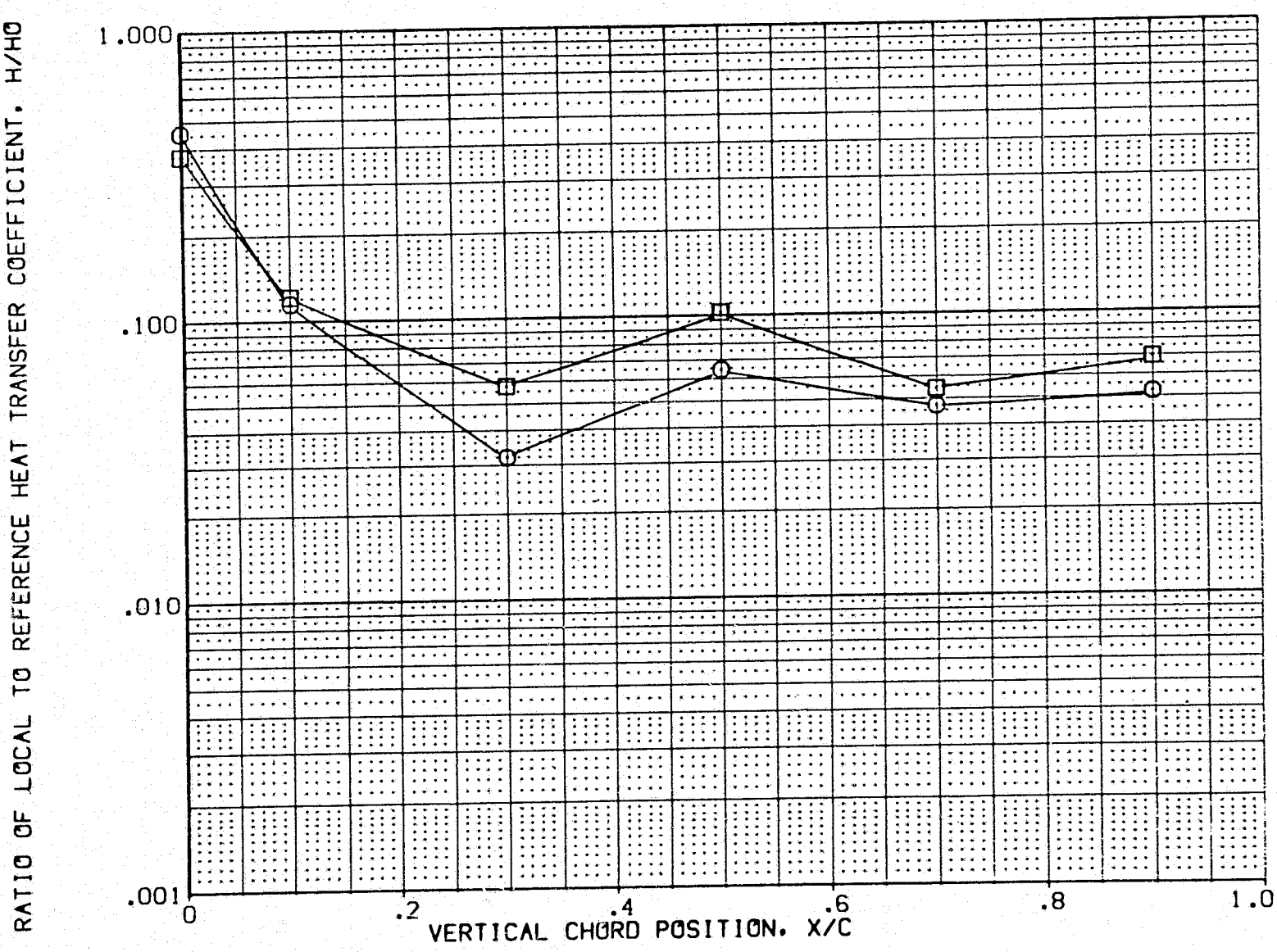


FIG. 27 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .532

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENV04) ○	ARC 3.5-185 IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV05) □	ARC 3.5-185 IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	5.000

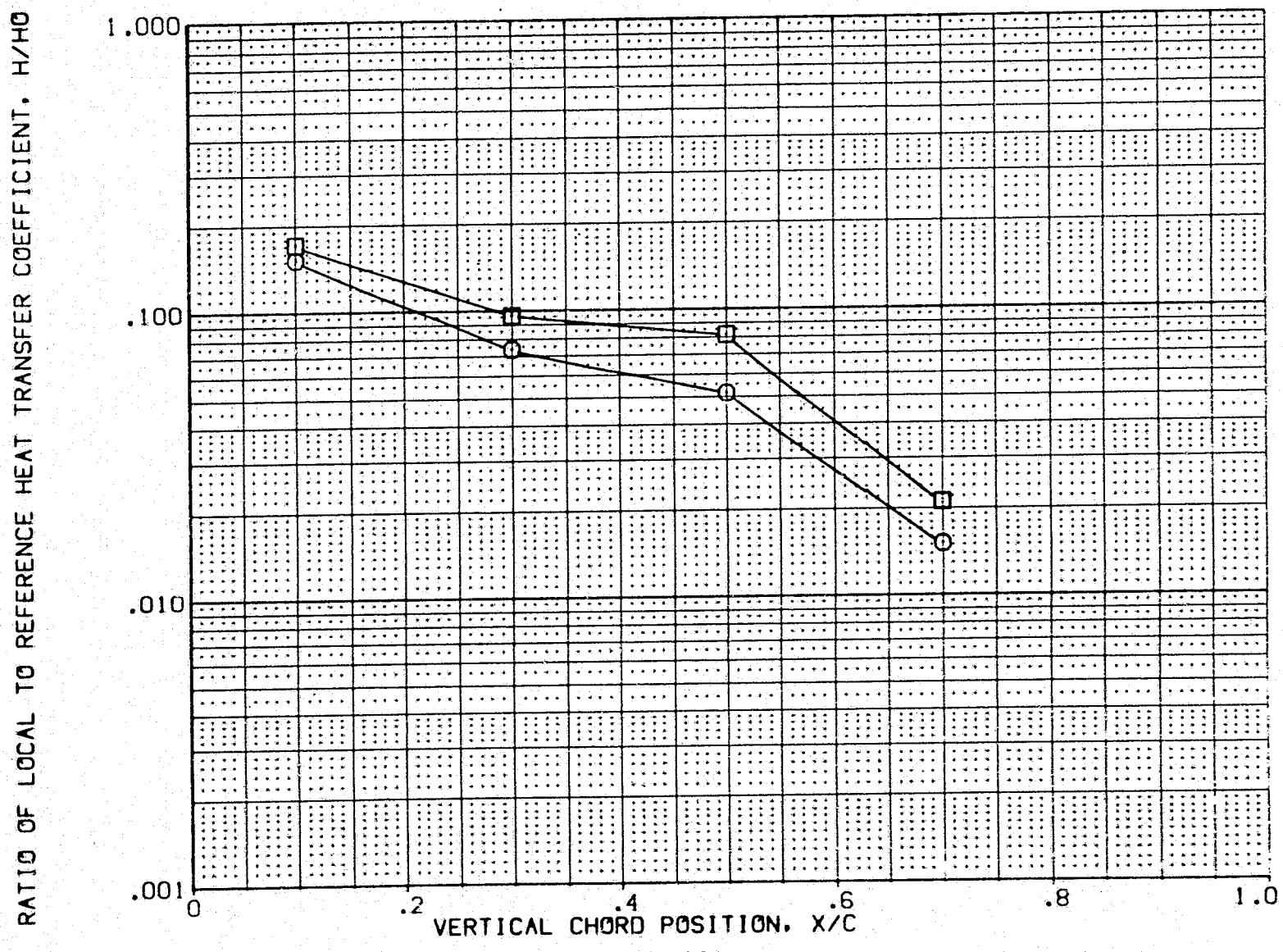


FIG. 27 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .765

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENV04)	○	ARC 3.5-185 IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV05)	□	ARC 3.5-185 IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	5.000

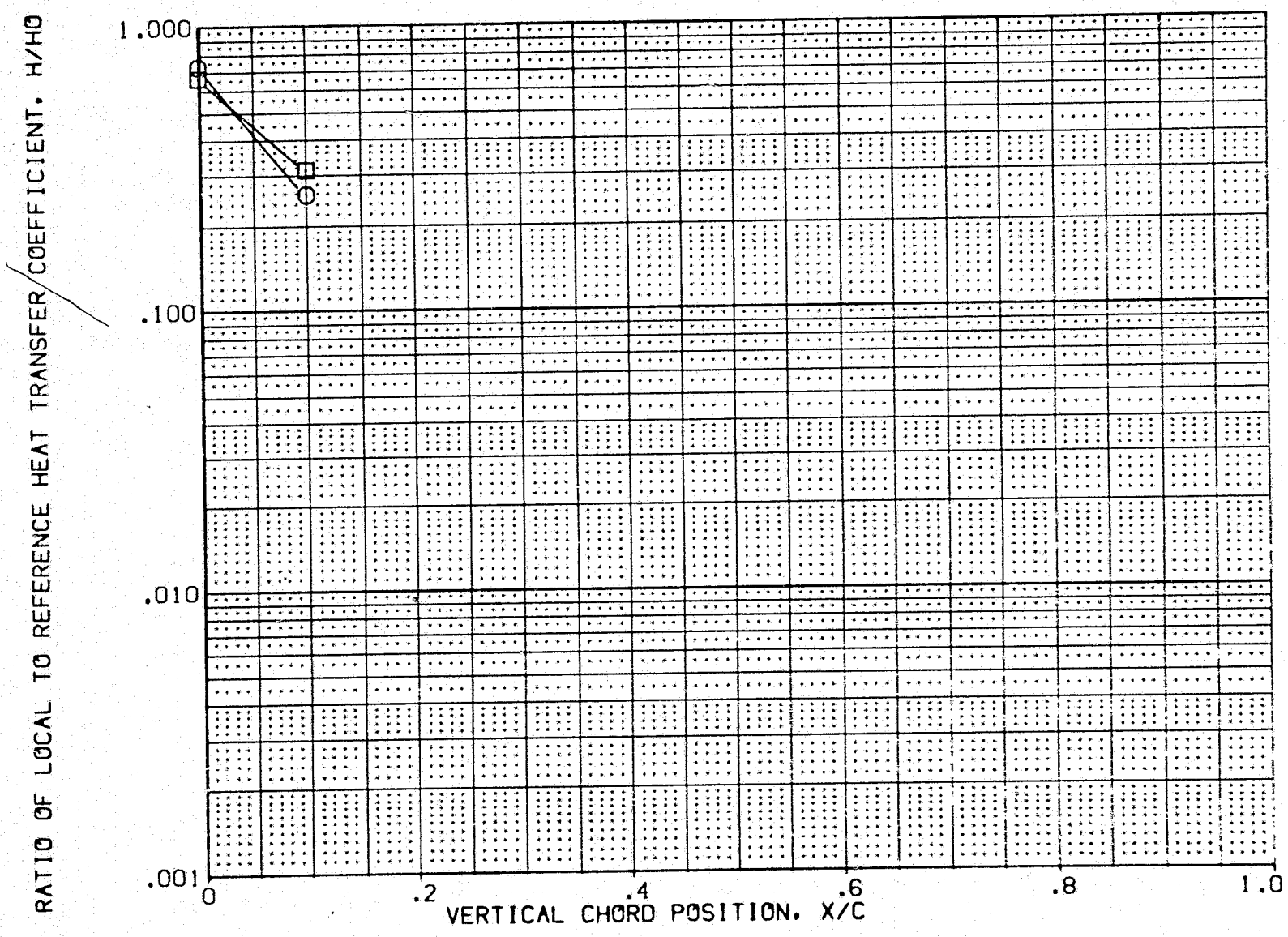


FIG. 27 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .905

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	MACH	RN/L
(RENV04) ○	ARC 3.5-18S IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV05) □	ARC 3.5-18S IH20 01+T15+S8+X28 VERTICAL TAIL	-5.000	.000	5.300	5.000

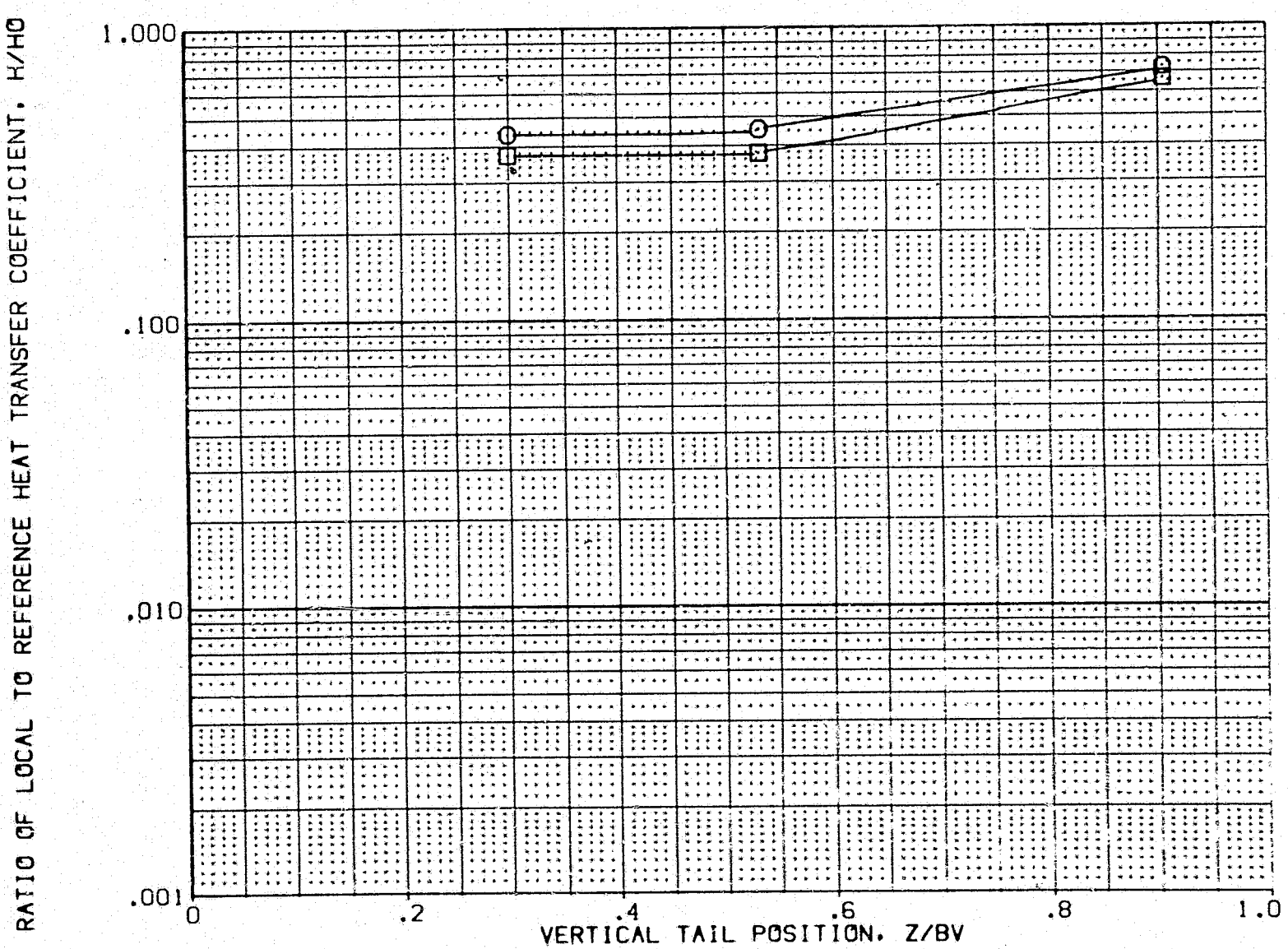


FIG. 27 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 X/C = .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENA15)	○	ARC 3.5-185 IH20 01+X28	ORB PHI=0.0	-5.000	.000	5.300	1.500
(RENA16)	□	ARC 3.5-185 IH20 01+X28	ORB PHI=0.0	-5.000	.000	5.300	5.000

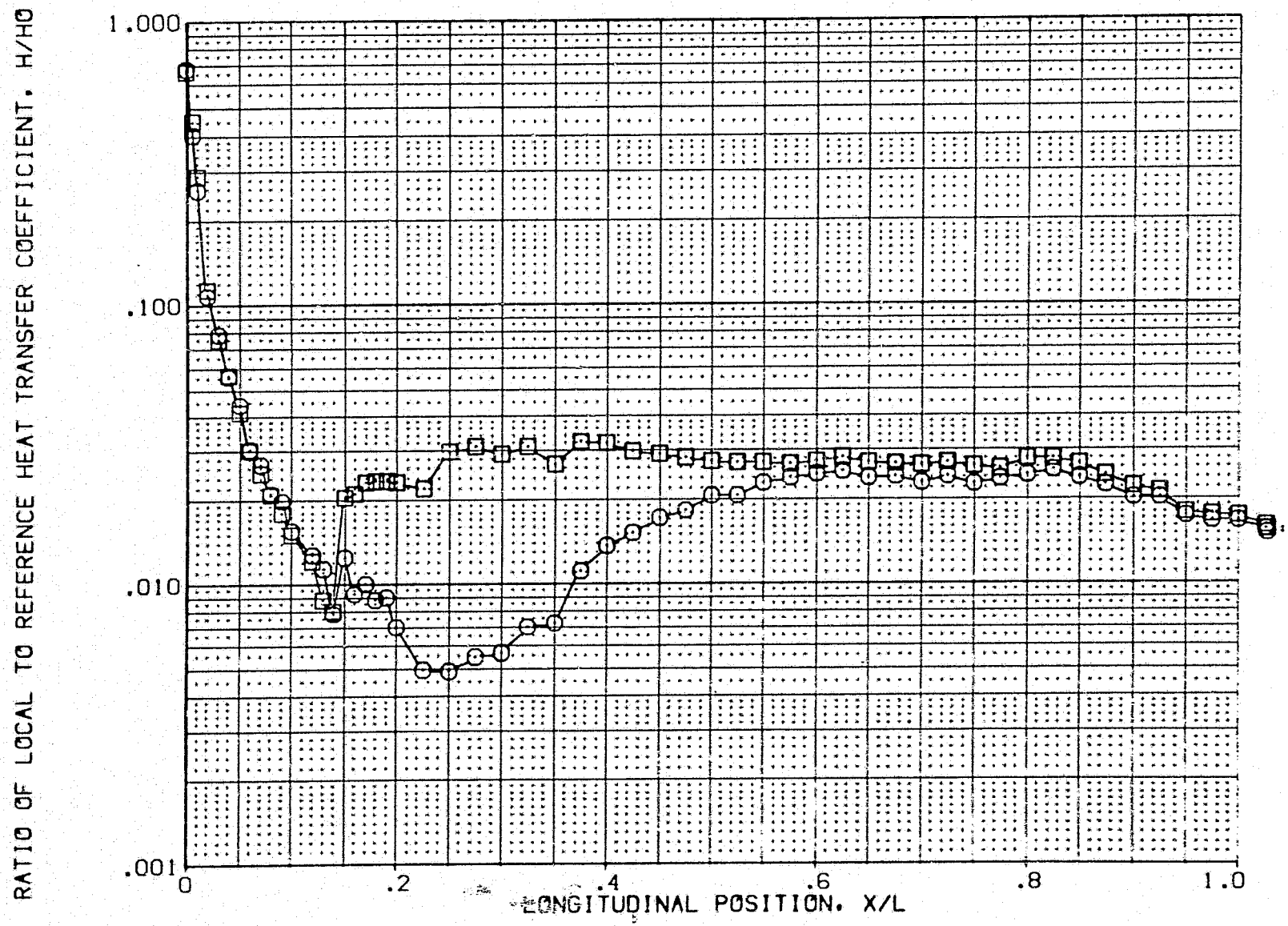


FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 PHI = .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENC15)	○	ARC 3.5-185 IH20 01+X28	ORB Y=0.875	-5.000	.000	5.300	1.500
(RENC16)	□	ARC 3.5-185 IH20 01+X28	ORB Y=0.875	-5.000	.000	5.300	5.000

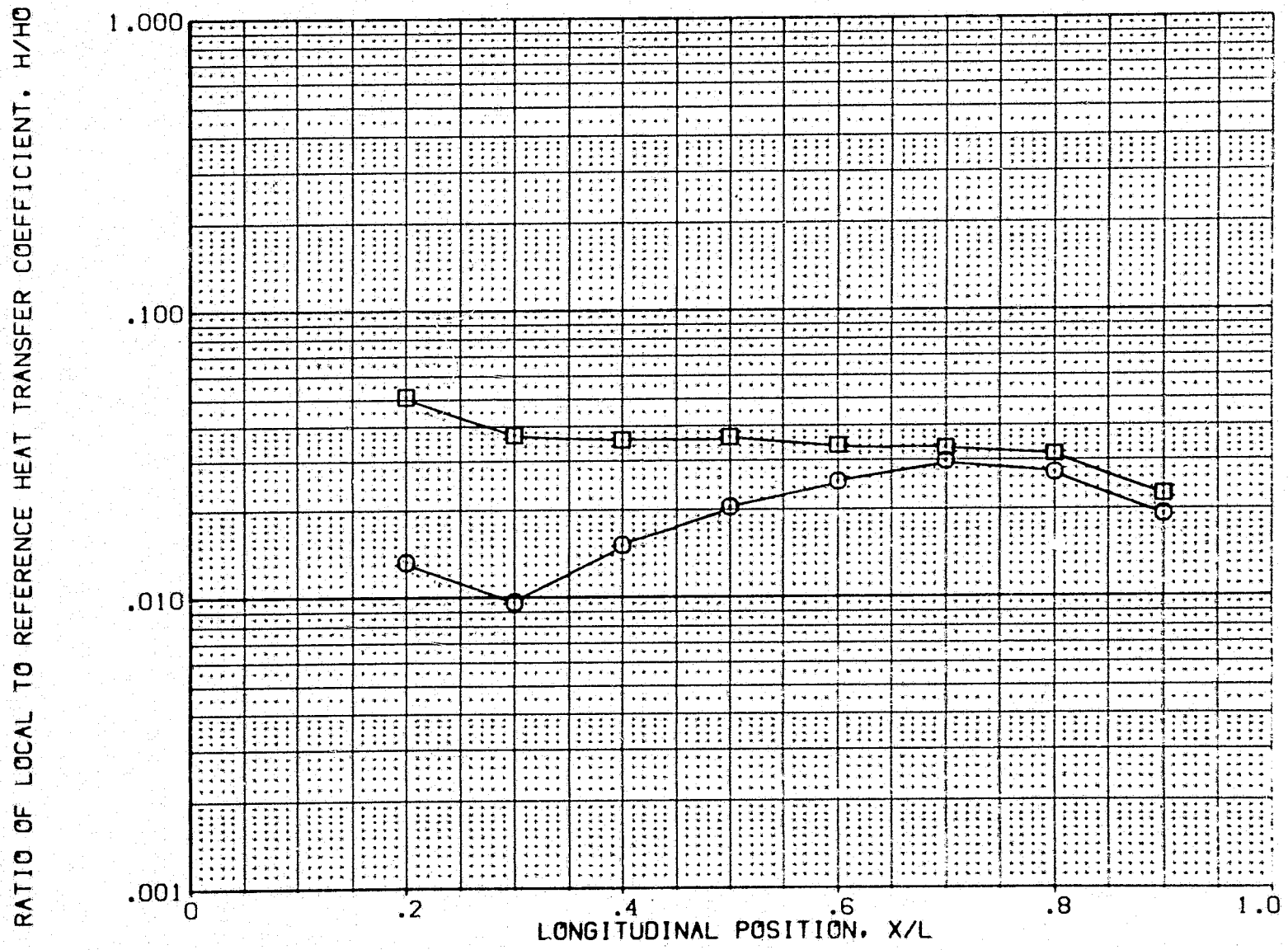


FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Y = .875

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENH15) ○	ARC 3.5-185 IH20 01+X28	ORB Z=7.525	-5.000	.000	5.300	1.500
(RENH16) □	ARC 3.5-185 IH20 01+X28	ORB Z=7.525	-5.000	.000	5.300	5.000

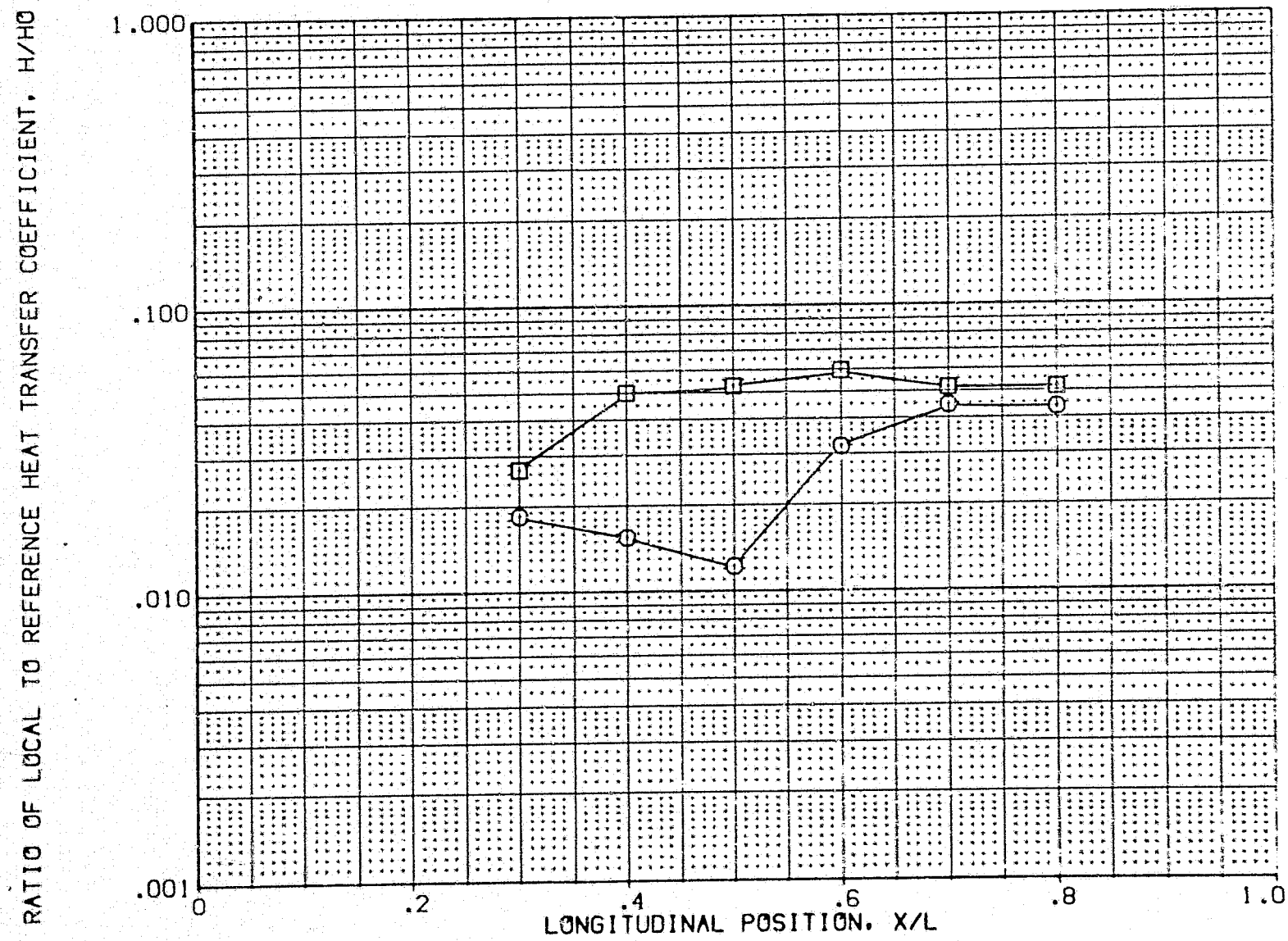


FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.525

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN115) ○	ARC 3.5-185 1H20 01+X28	ORB WINDOWS	-5.000	.000	5.300	1.500
(REN116) □	ARC 3.5-185 1H20 01+X28	ORB WINDOWS	-5.000	.000	5.300	5.000

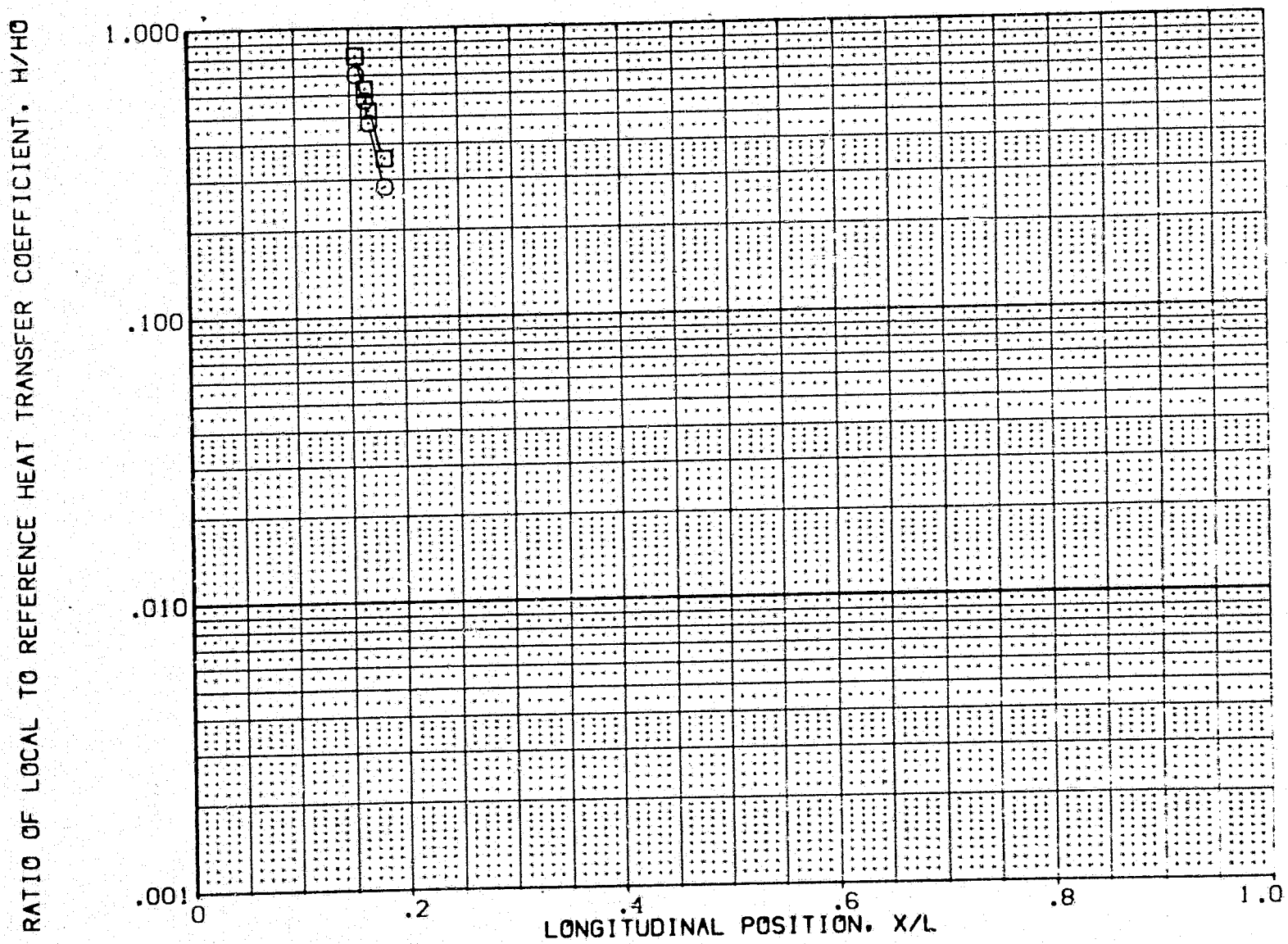


FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 7.910

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN115)	○	ARC 3.5-185 1H20 01+X28	ORB WINDOWS	-5.000	.000	5.300	1.500
(REN116)	□	ARC 3.5-185 1H20 01+X28	ORB WINDOWS	-5.000	.000	5.300	5.000

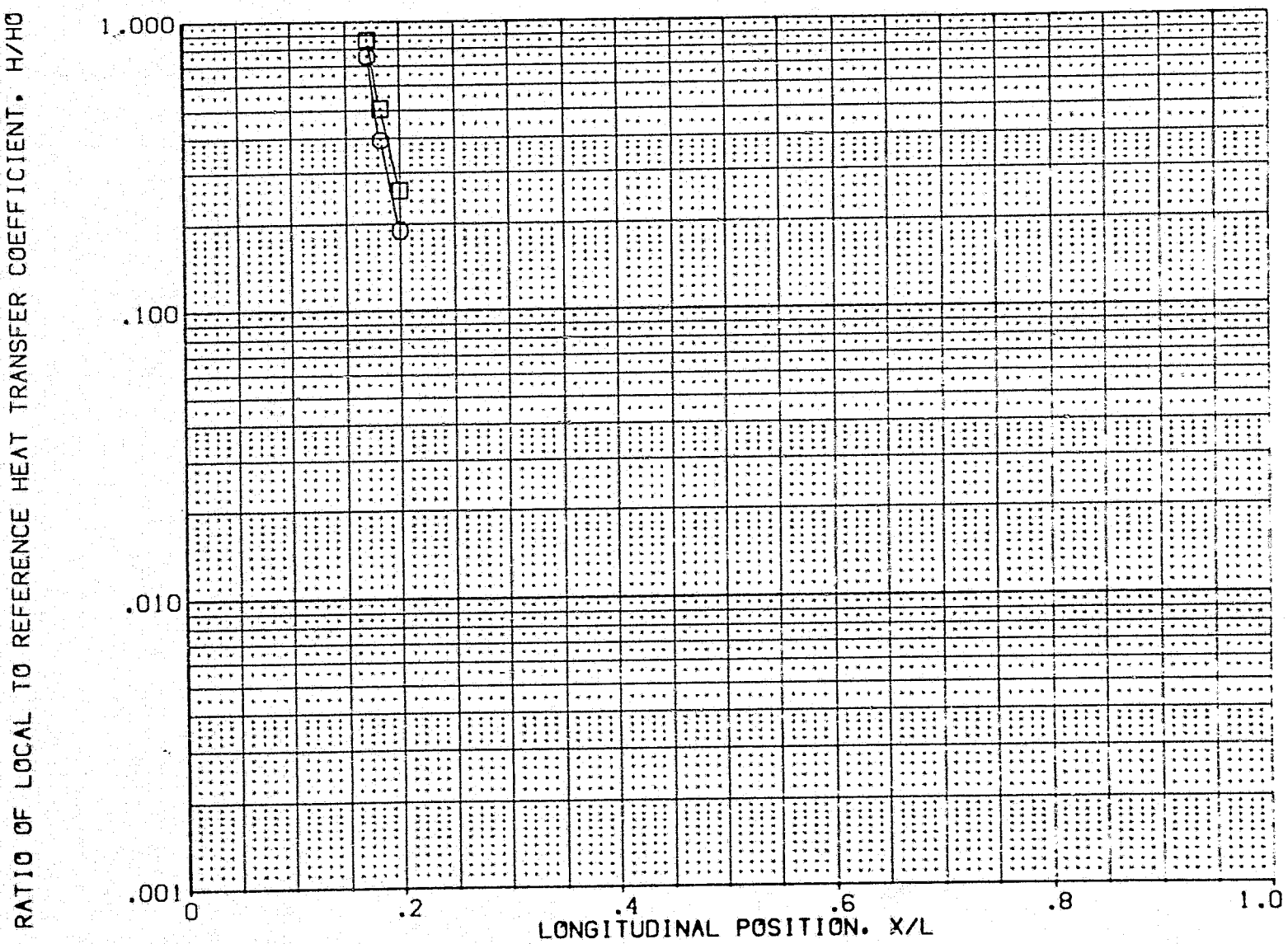


FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.137

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN115) ○	ARC 3.5-185 1H20 01+X/8	ORB WINDOWS	-5.000	.000	5.300	1.500
(REN116) □	ARC 3.5-185 1H20 01+X/8	ORB WINDOWS	-5.000	.000	5.300	5.000

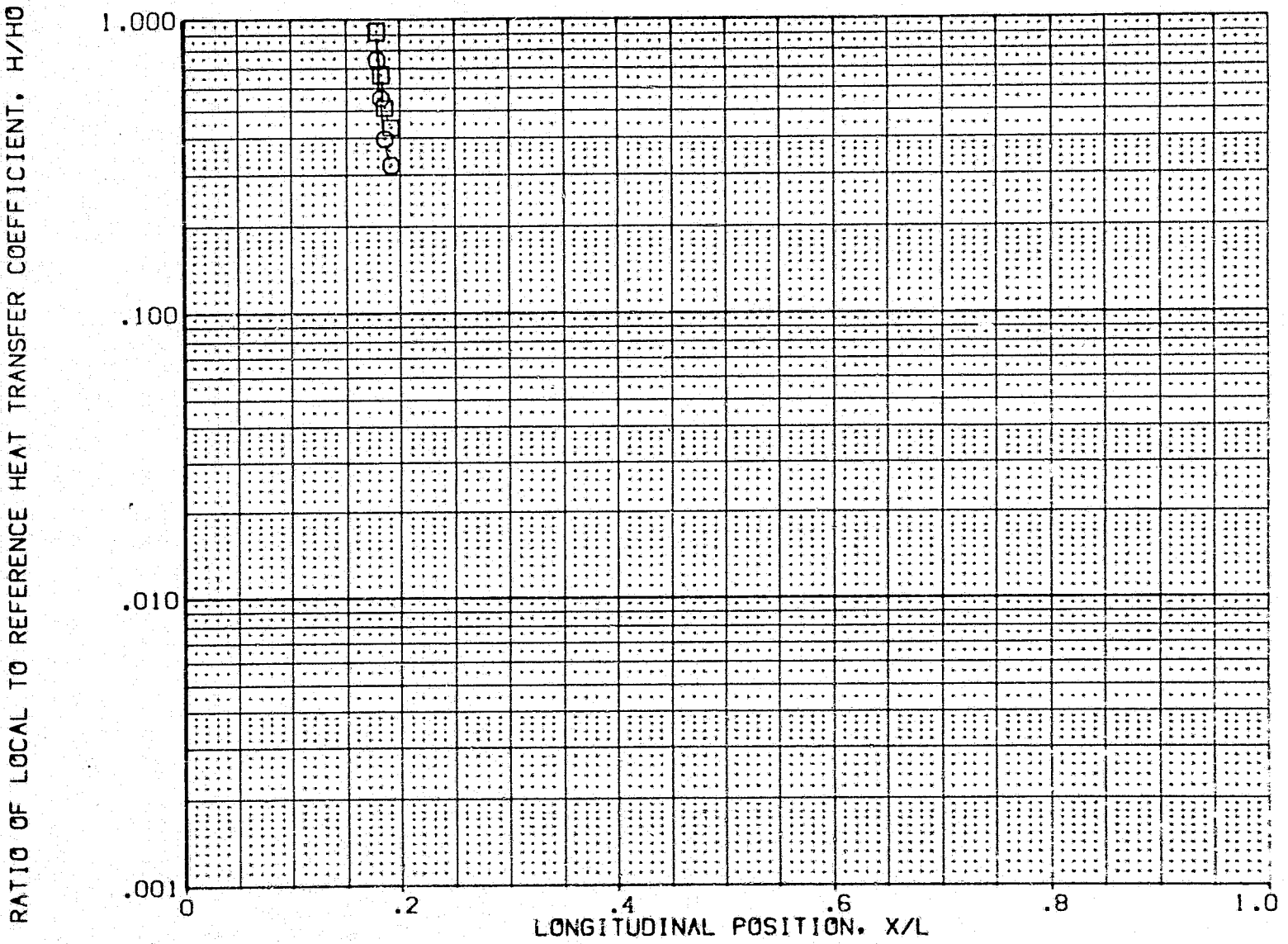


FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.365

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENM15)	○	ARC 3.5-185 IH20 01+X28	ORB Z=8.295	-5.000	.000	5.300	1.500
(RENM16)	□	ARC 3.5-185 IH20 01+X28	ORB Z=8.295	-5.000	.000	5.300	5.000

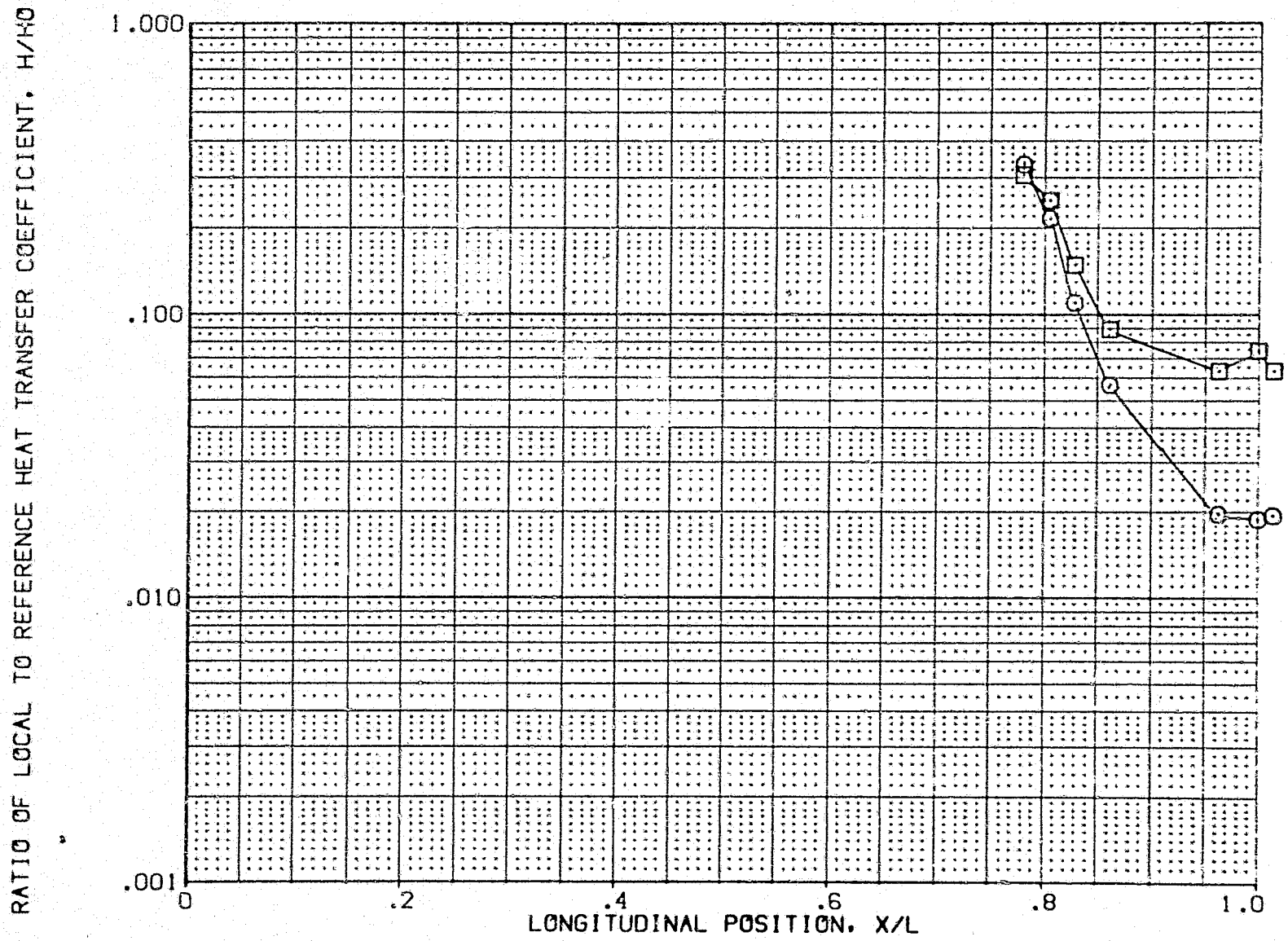


FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.295

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENJ15) ○	ARC 3.5-185 IH20 01+X28	ORB Z=8.379	-5.000	.000	5.300	1.500
(RENJ16) □	ARC 3.5-185 IH20 01+X28	ORB Z=8.379	-5.000	.000	5.300	5.000

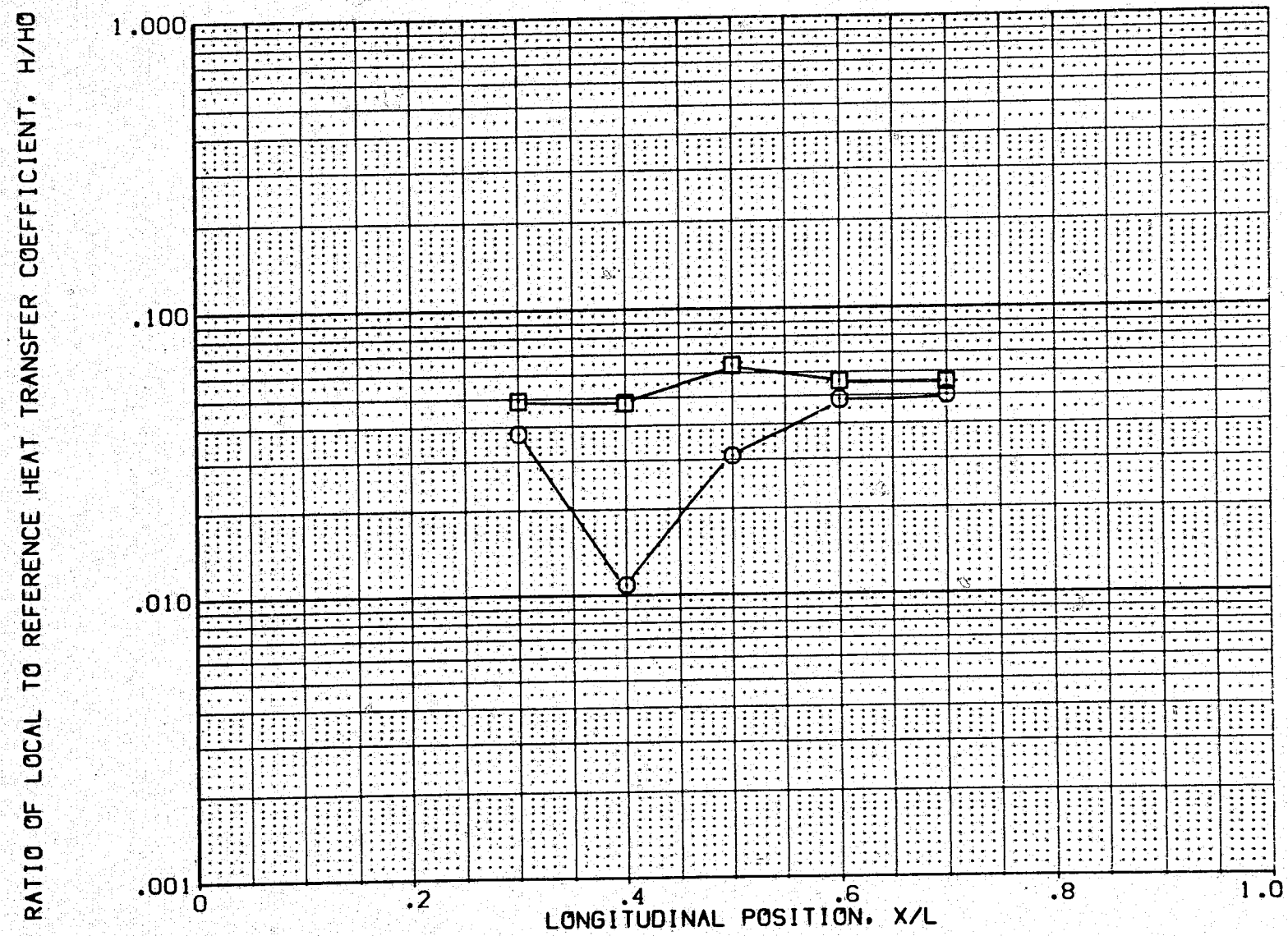


FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Z = 8.379

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(REN015)	○	ARC 3.5-185 1H20 01+X28	OMS TOP	-5.000	.000	5.300	1.500
(REN016)	□	ARC 3.5-185 1H20 01+X28	OMS TOP	-5.000	.000	5.300	5.000

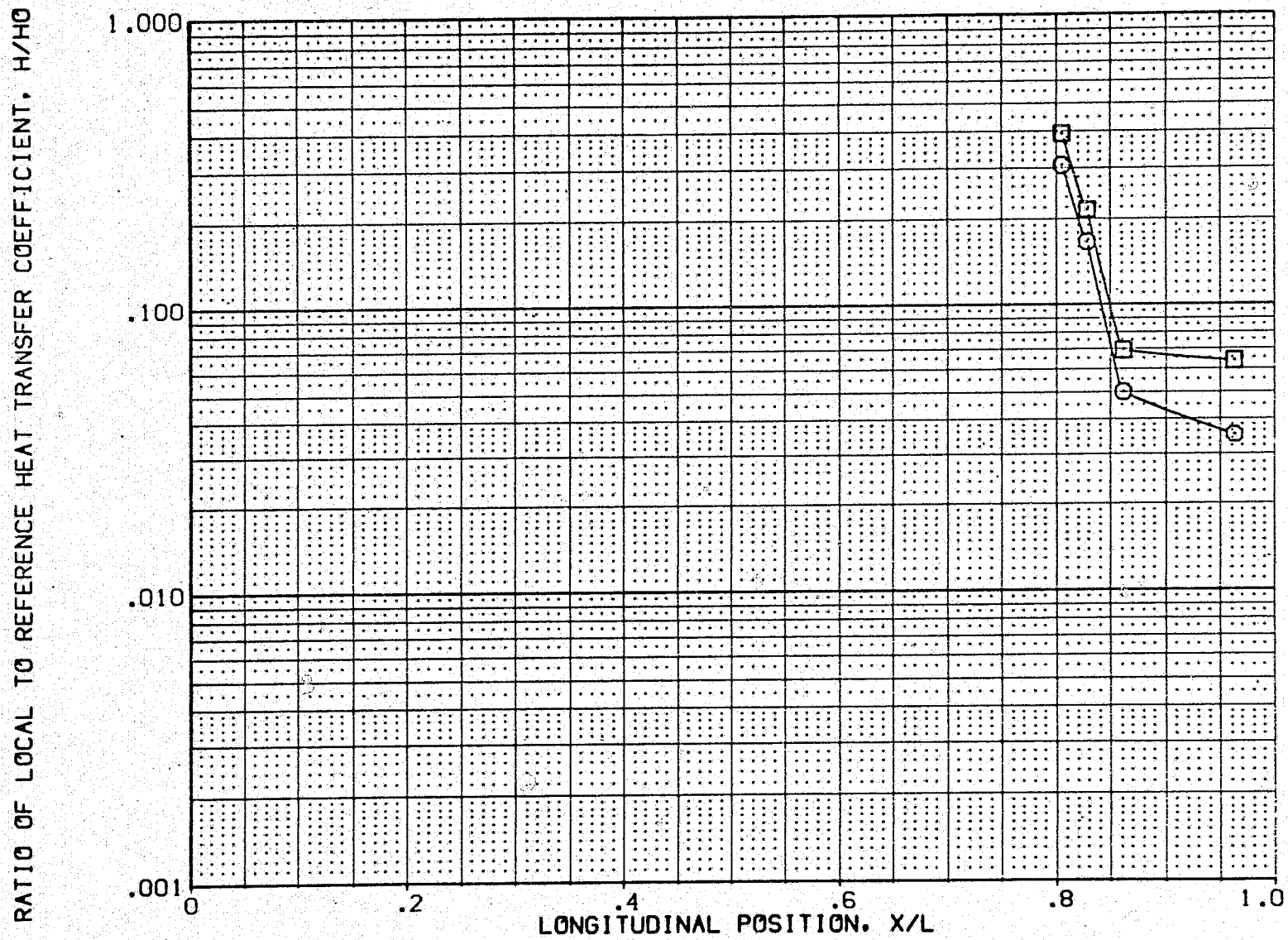


FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 Y = 1.662

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENK15)	○	ARC 3.5-185 IH20 01+X28	ORB PHI=180	-5.000	.000	5.300	1.500
(RENK16)	□	ARC 3.5-185 IH20 01+X28	ORB PHI=180	-5.000	.000	5.300	5.000



FIG. 28 EFFECT OF REYNOLDS NO. - BODY

MACH = 5.300 HAW/HT= .900 PHI = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW15) ○	ARC 3.5-185 IH20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW16) □	ARC 3.5-185 IH20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

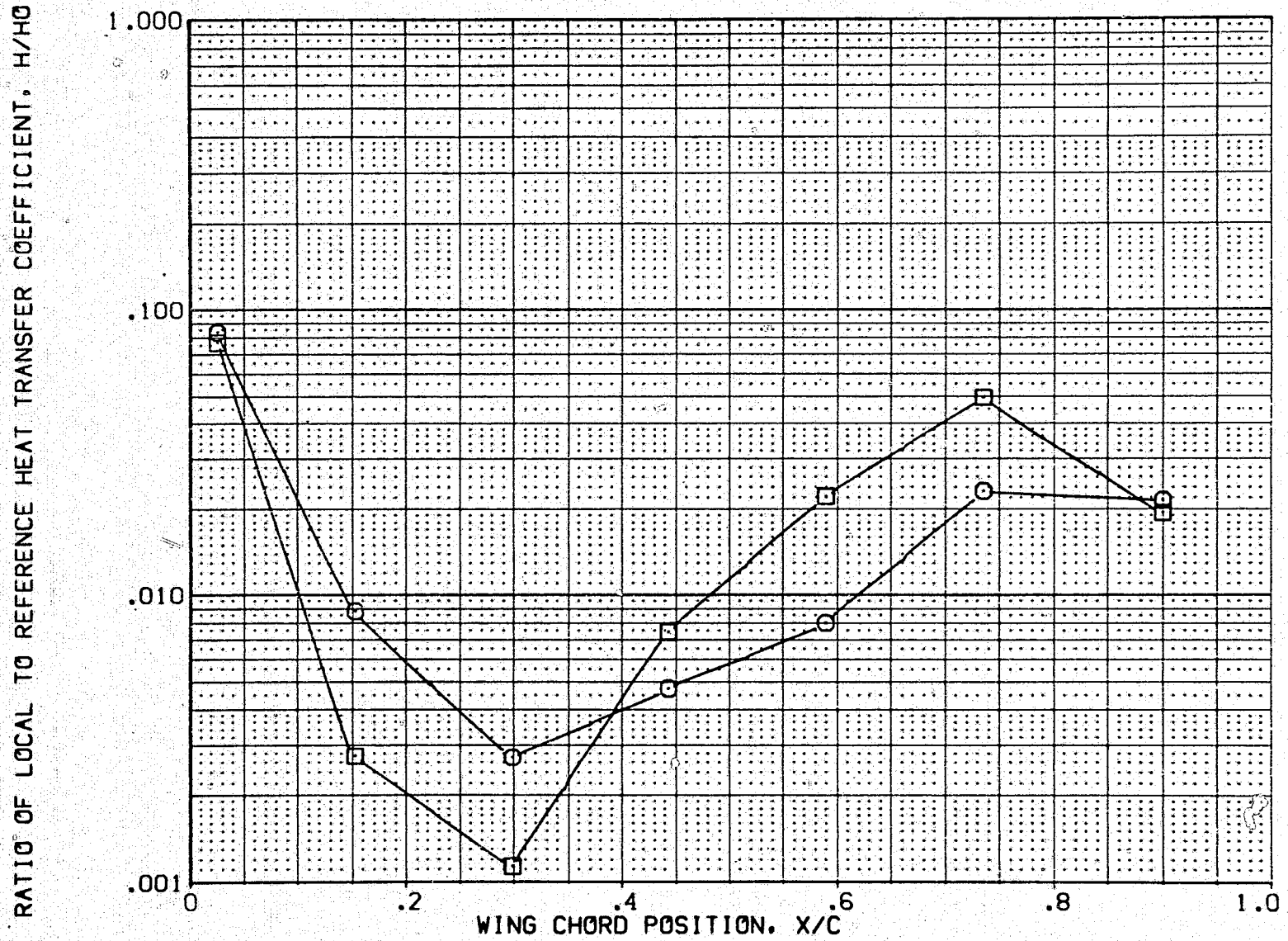


FIG. 29 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .250

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW15)	ARC 3.5-185 IH20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW16)	ARC 3.5-185 IH20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

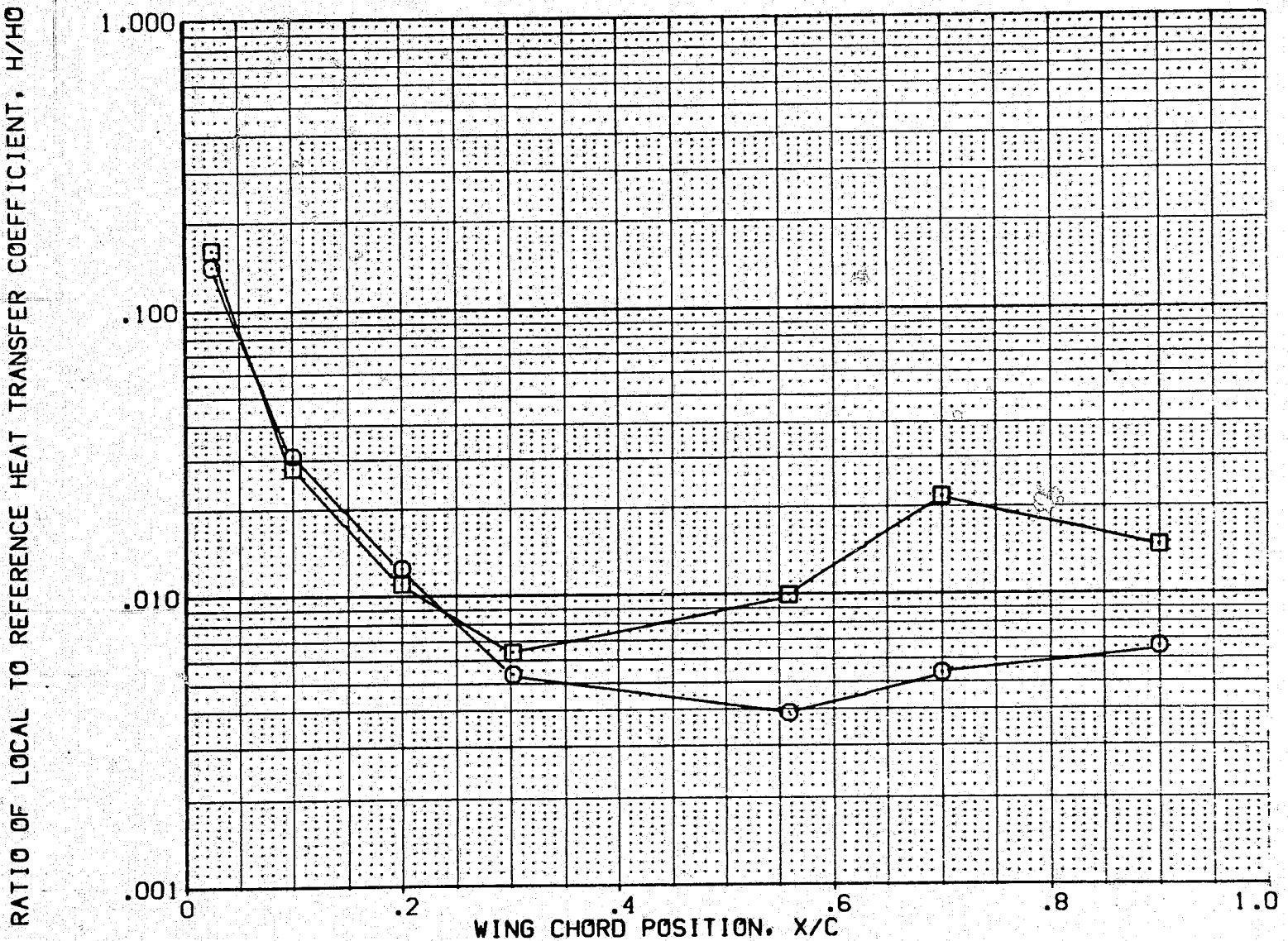


FIG. 29 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW15) ○	ARC 3.5-185 IH20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW16) □	ARC 3.5-185 IH20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

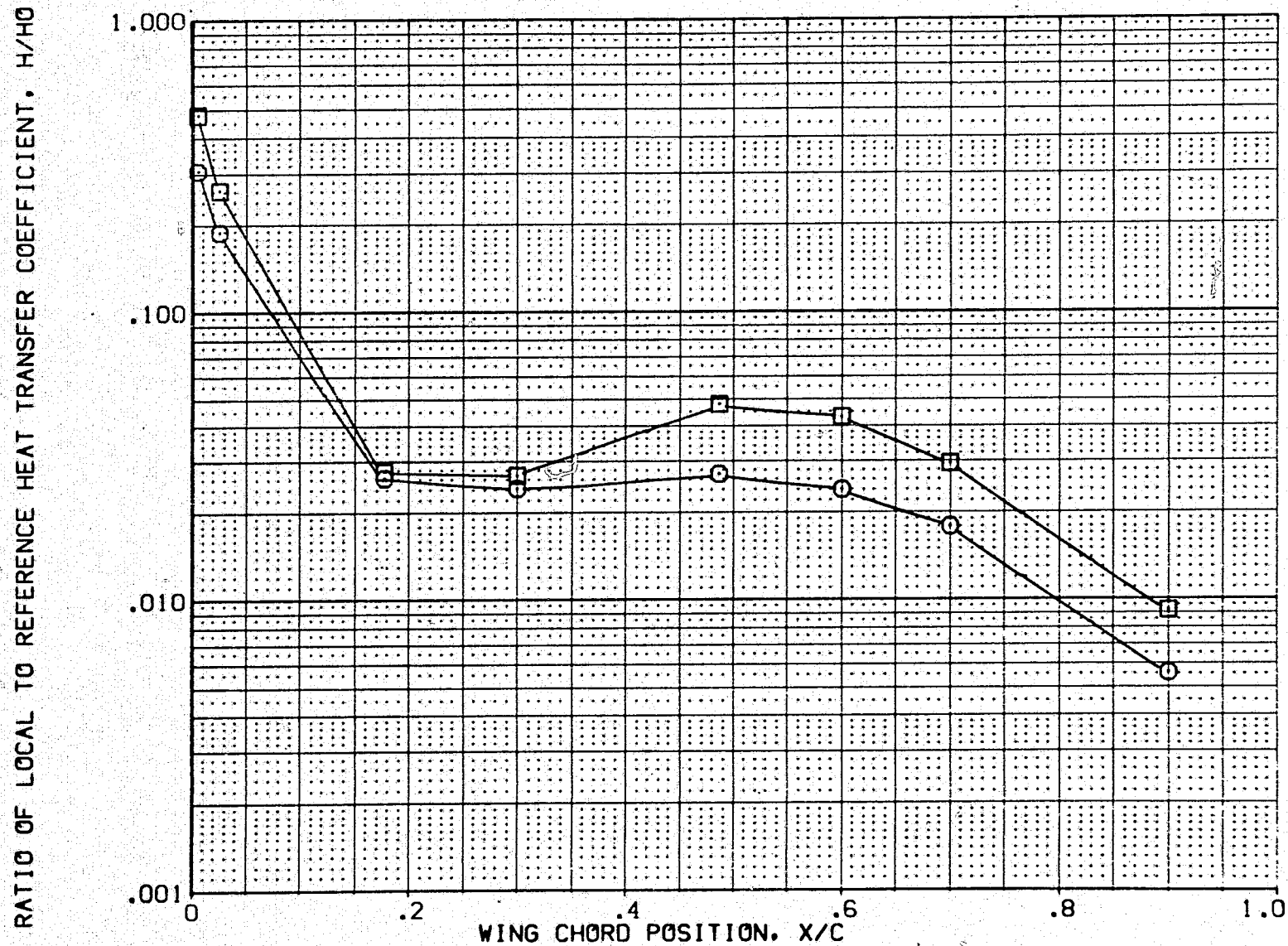


FIG. 29 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENW15)	○	ARC 3.5-185 1H20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENW16)	□	ARC 3.5-185 1H20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

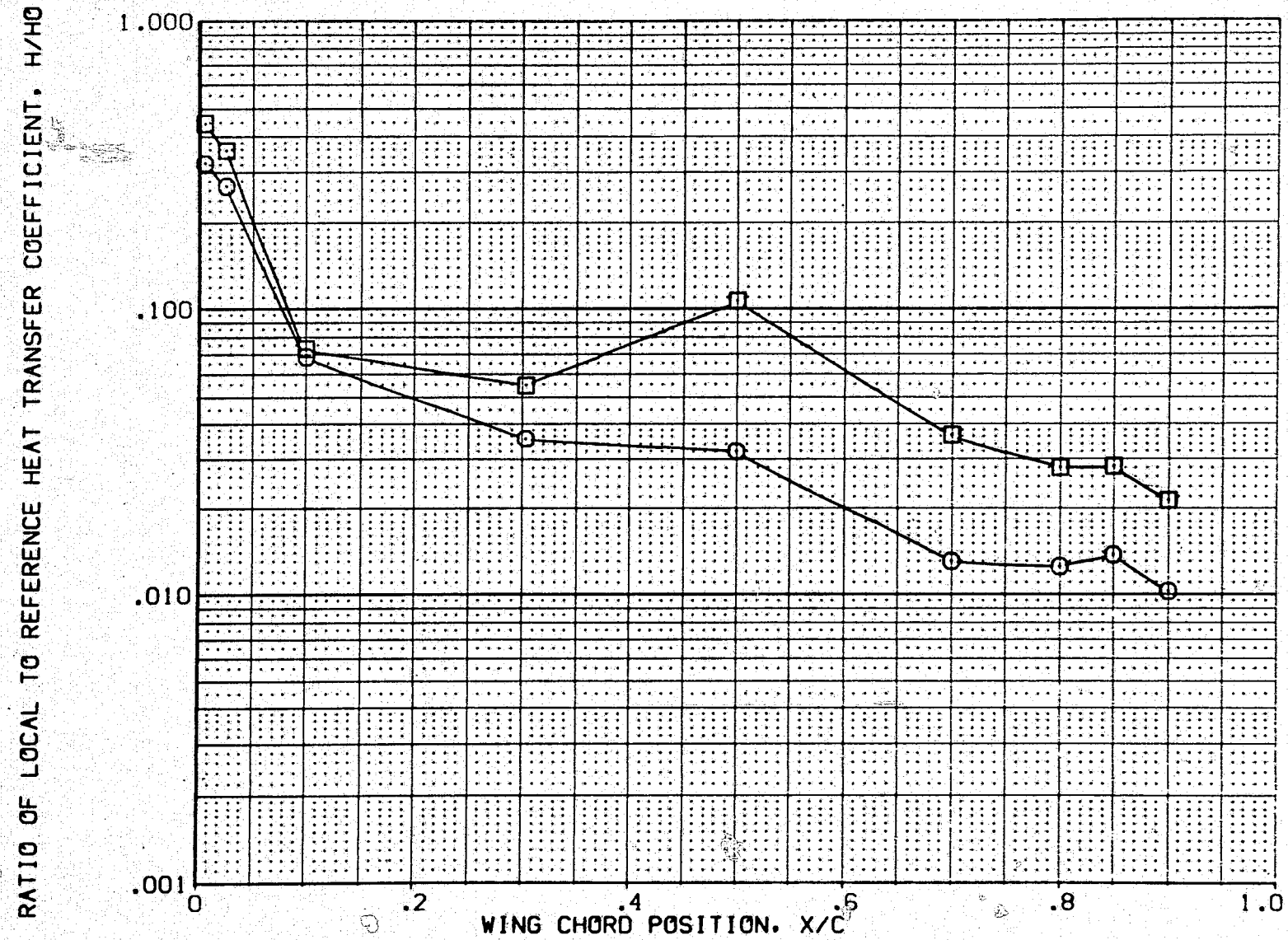


FIG. 29 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .750

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV15)	○	ARC 3.5-185 IH20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	1.500
(RENV16)	□	ARC 3.5-185 IH20 01+X28	WING BOTTOM SURF.	-5.000	.000	5.300	5.000

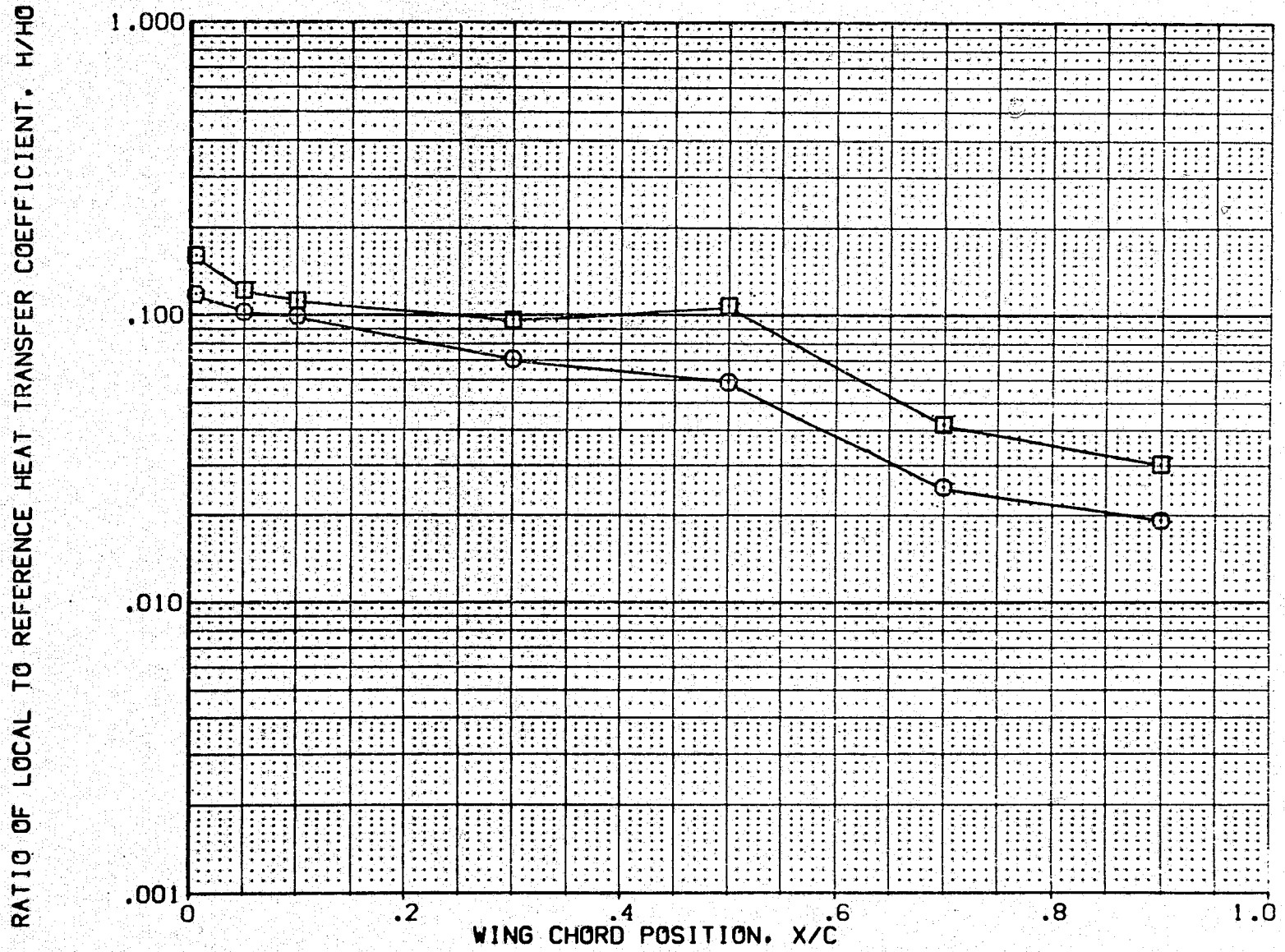


FIG. 29 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .950

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX15) ○	ARC 3.5-185 1H20 01+X28	WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX16) □	ARC 3.5-185 1H20 01+X28	WING UPPER SURF.	-5.000	.000	5.300	5.000

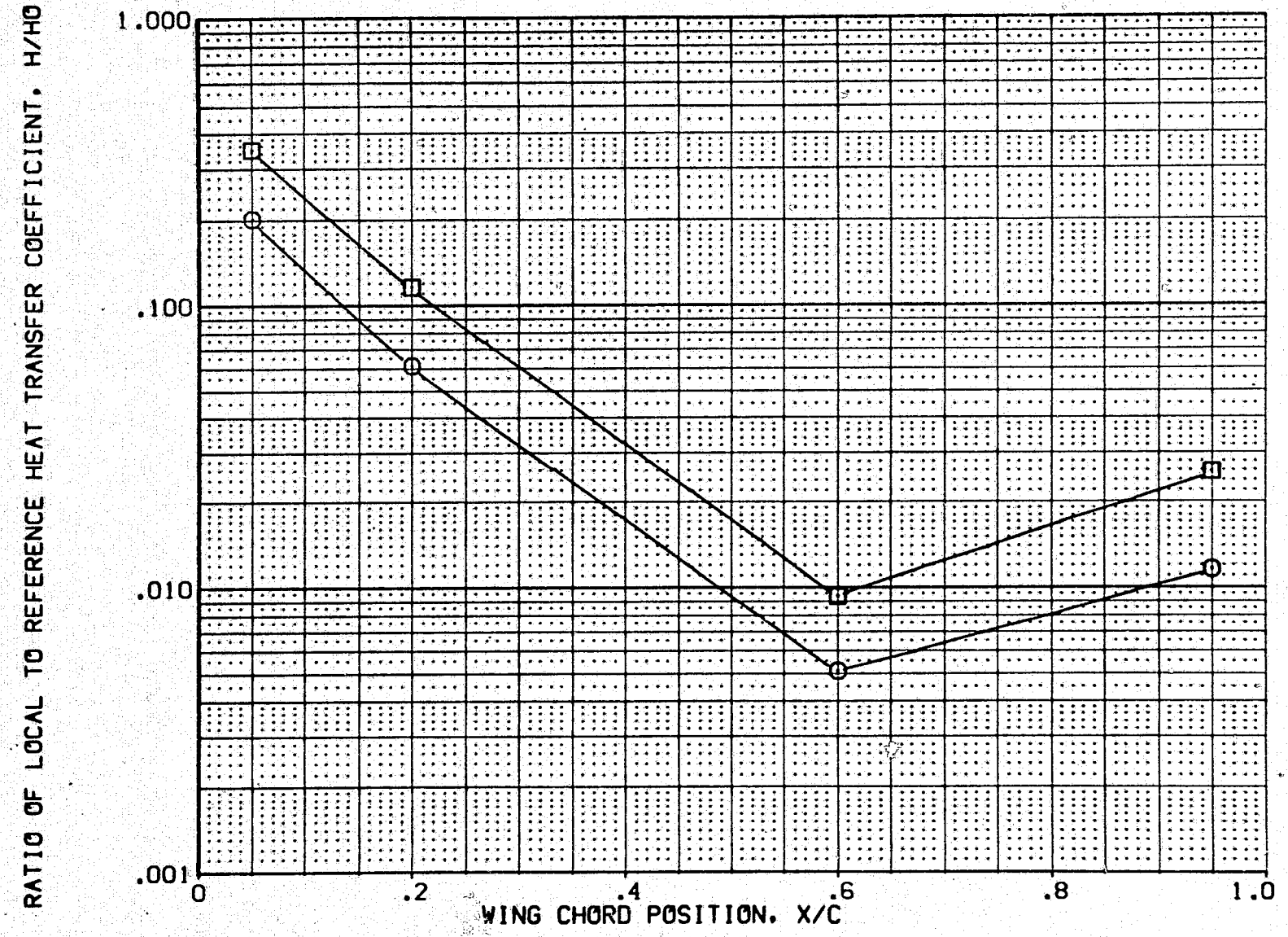


FIG. 29 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .400

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX15)	○	ARC 3.5-185 IH20 01+X28	WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX16)	□	ARC 3.5-185 IH20 01+X28	WING UPPER SURF.	-5.000	.000	5.300	5.000

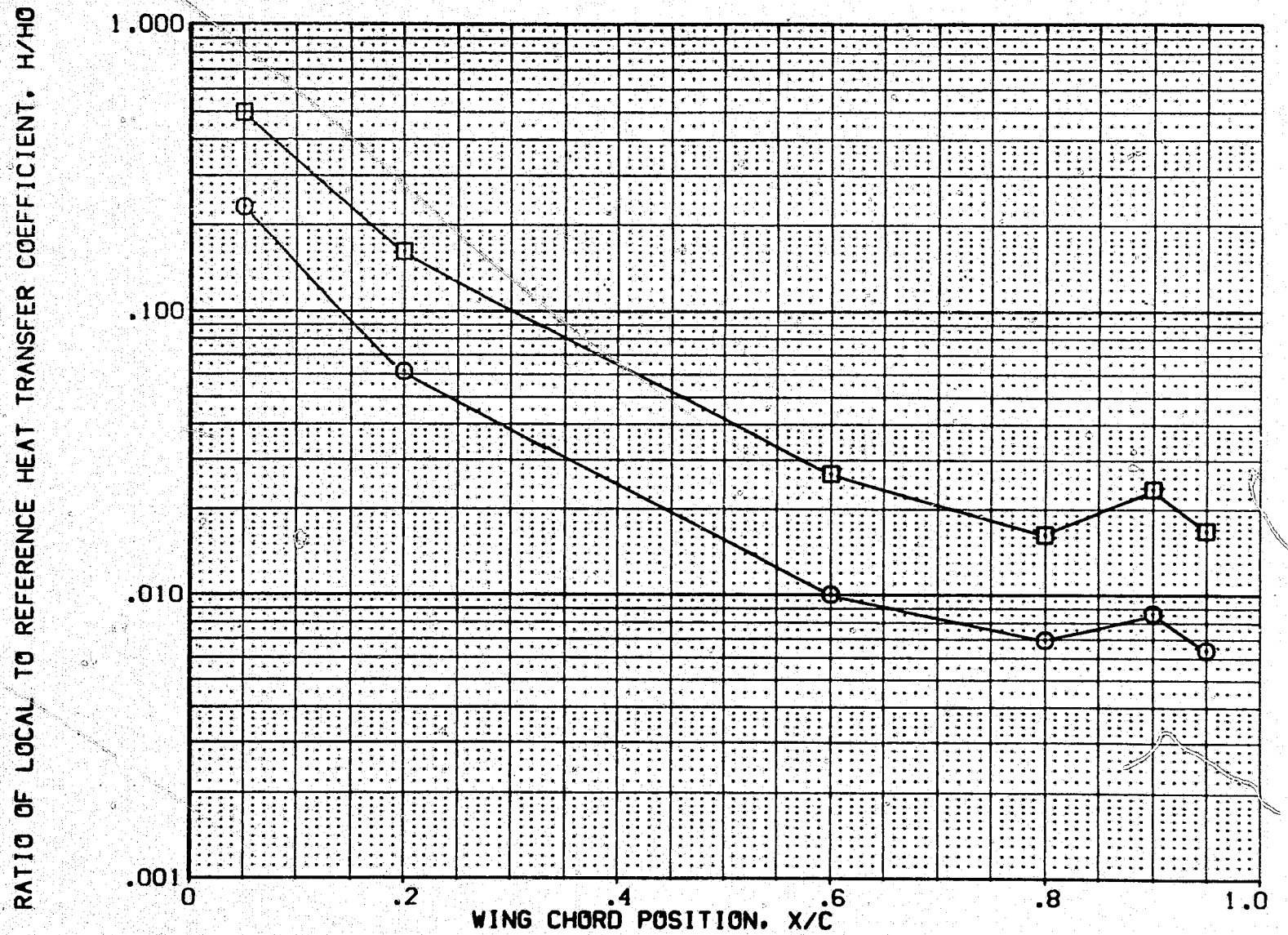


FIG. 29 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .600

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENX15) ○	ARC 3.5-185 IH20 01+X28	WING UPPER SURF.	-5.000	.000	5.300	1.500
(RENX16) □	ARC 3.5-185 IH20 01+X28	WING UPPER SURF.	-5.000	.000	5.300	5.000

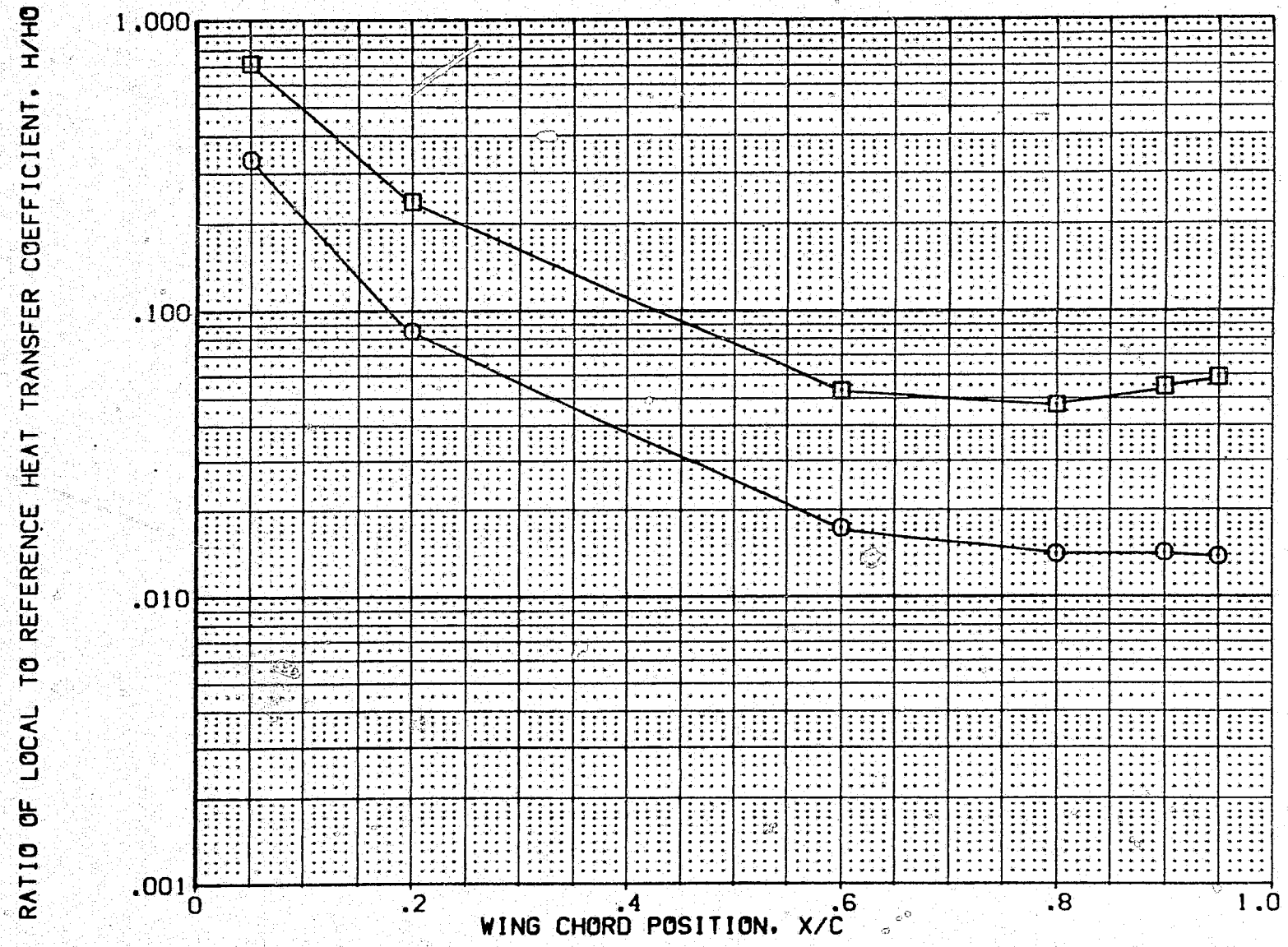


FIG. 29 EFFECT OF REYNOLDS NO. - WING

MACH = 5.300 HAW/HT= .900 2Y/B = .800

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV15) ○	ARC 3.5-185 IH20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV16) □	ARC 3.5-185 IH20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	5.000

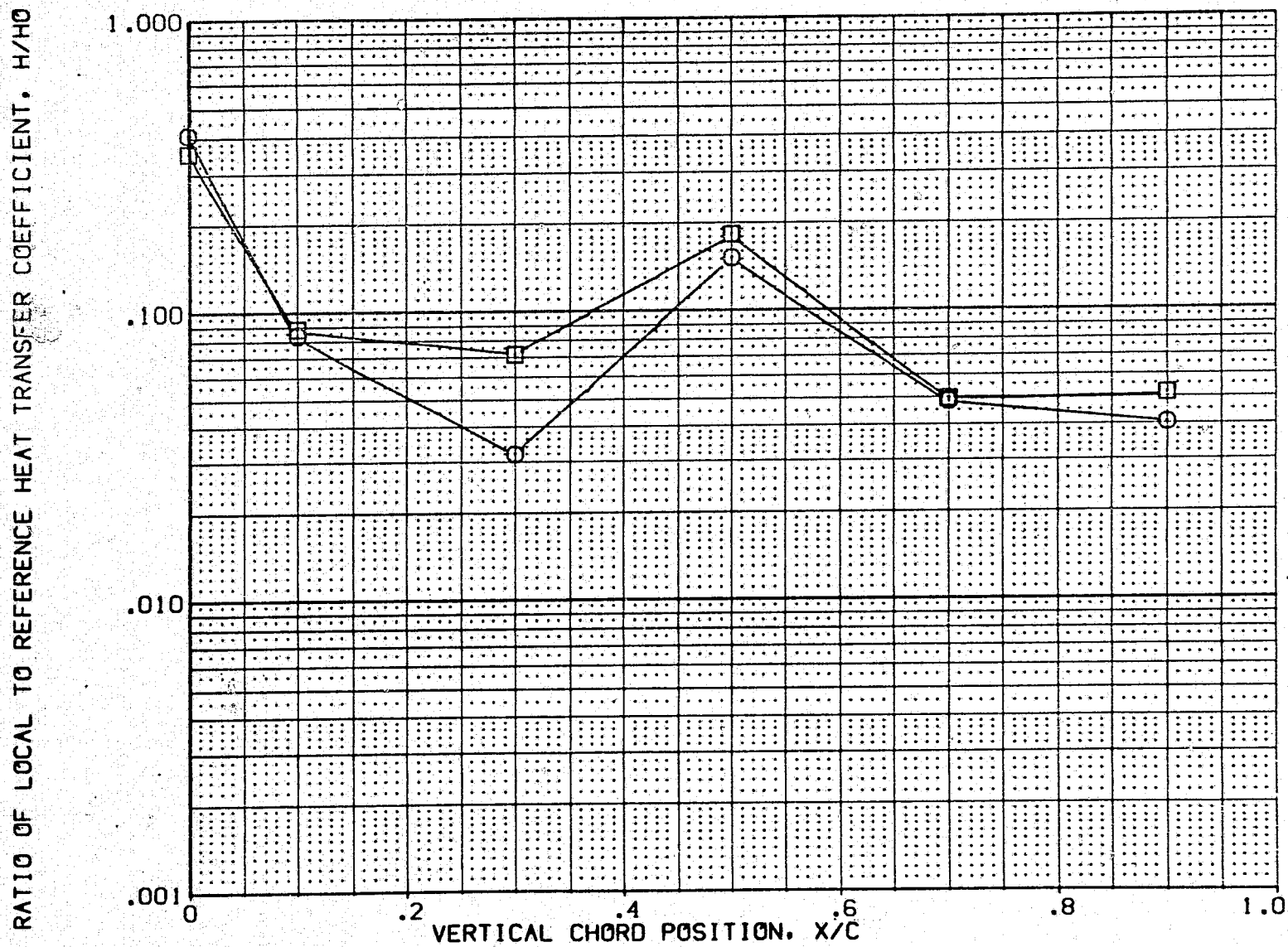


FIG. 30 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .299

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENVI5)	ARC 3.5-185 IH20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENVI6)	ARC 3.5-185 IH20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	5.000

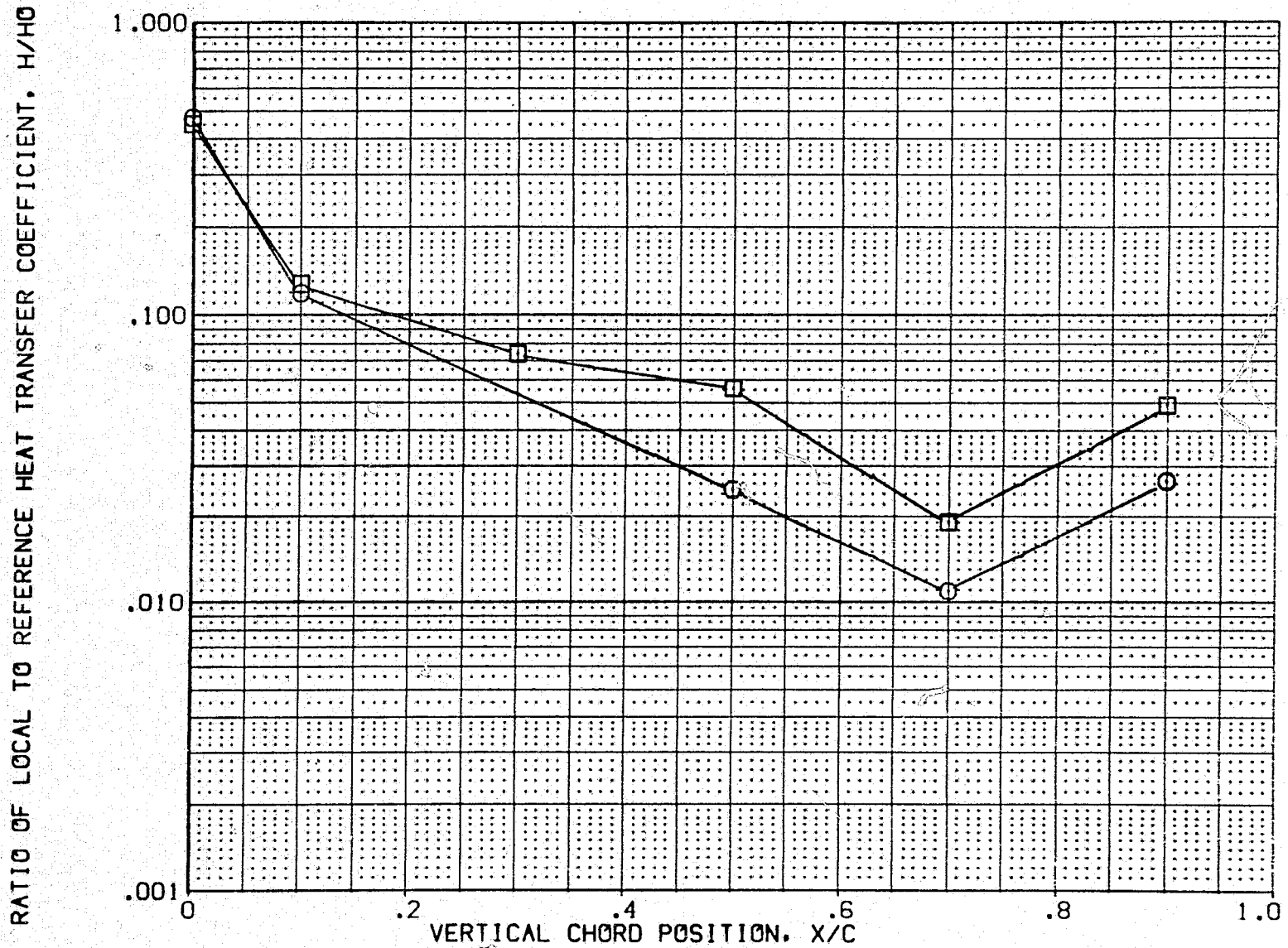


FIG. 30 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .532

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV15) ○	ARC 3.5-185 IH20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV16) □	ARC 3.5-185 IH20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	5.000

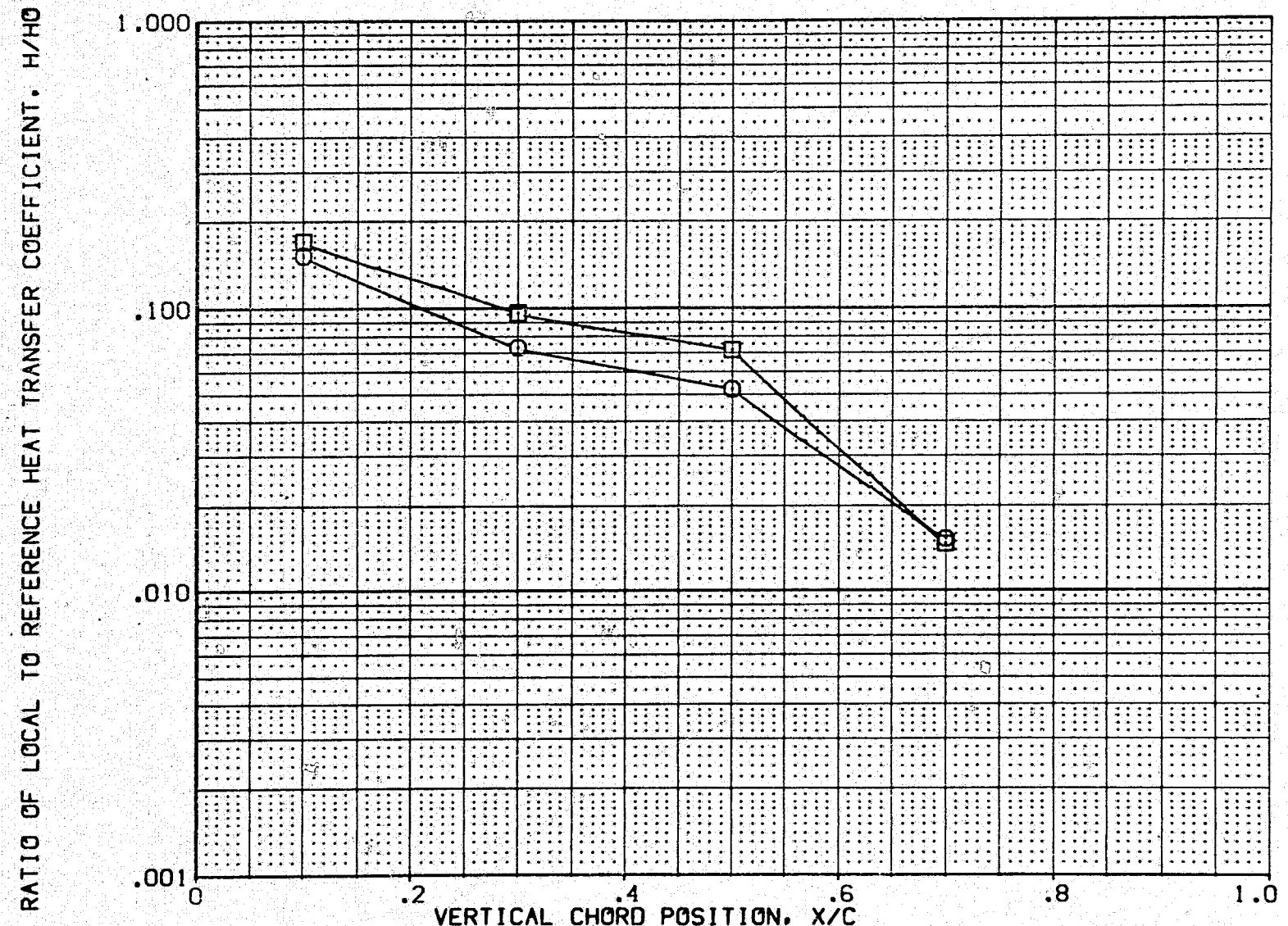


FIG. 30 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .765

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV15)	ARC 3.5-185 1H20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV16)	ARC 3.5-185 1H20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	5.000

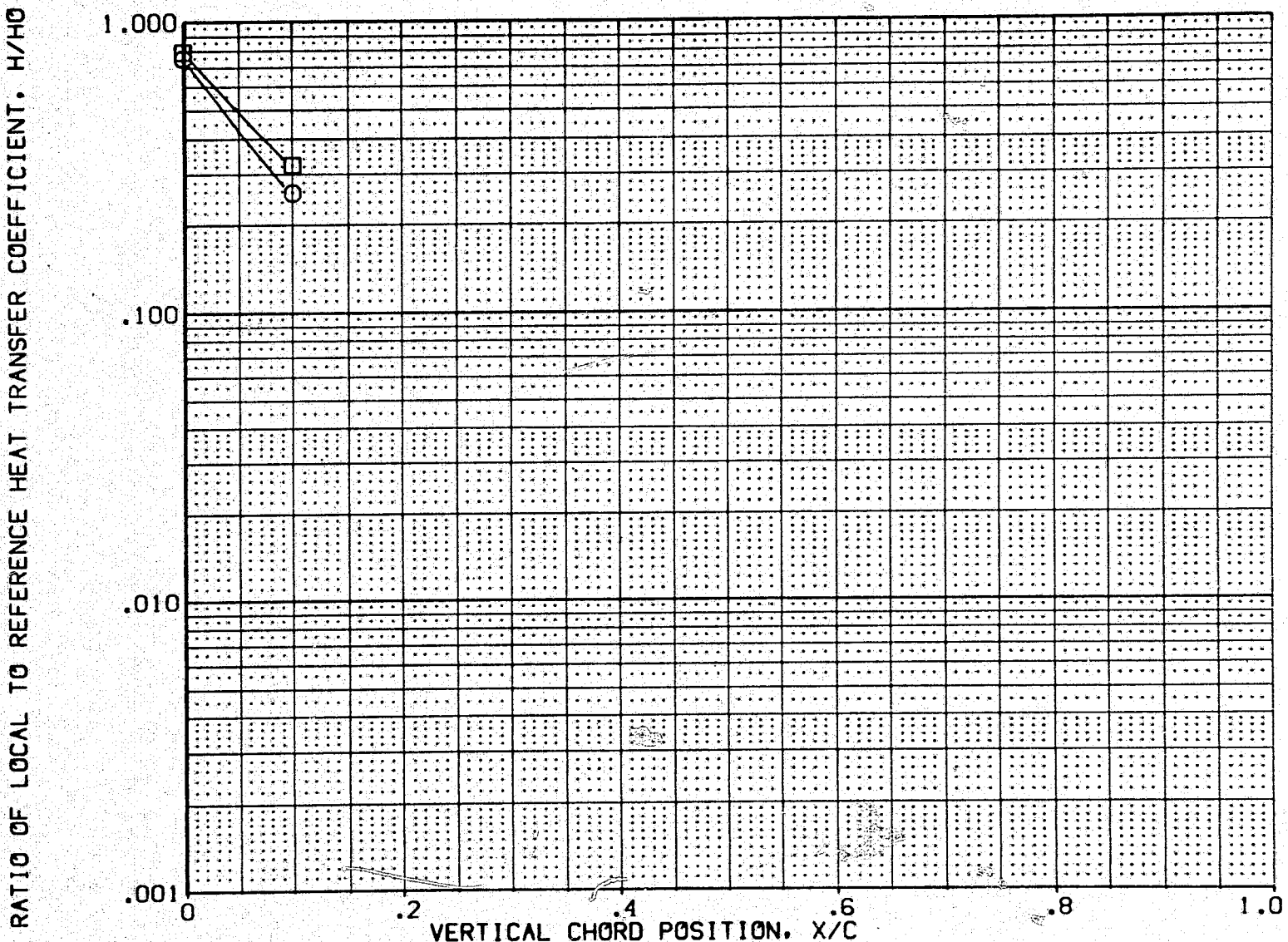


FIG. 30 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 Z/BV = .905

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENV15)	○	ARC 3.5-185 IH20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	1.500
(RENV16)	□	ARC 3.5-185 IH20 01+X28	VERTICAL TAIL	-5.000	.000	5.300	5.000

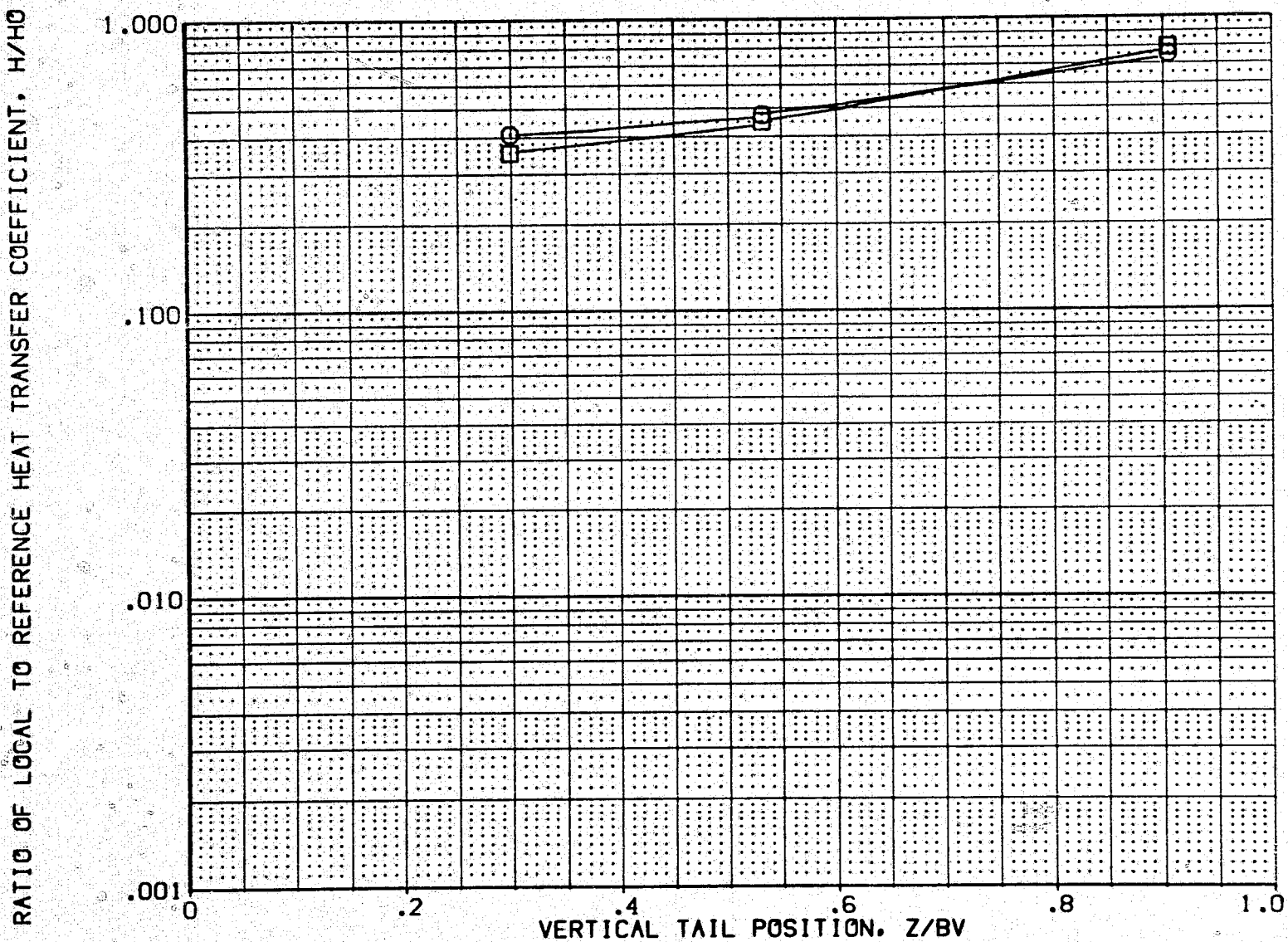


FIG. 30 EFFECT OF REYNOLDS NO. - VERTICAL

MACH = 5.300 HAW/HT= .900 X/C = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT17) ○	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT18) □	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	5.000

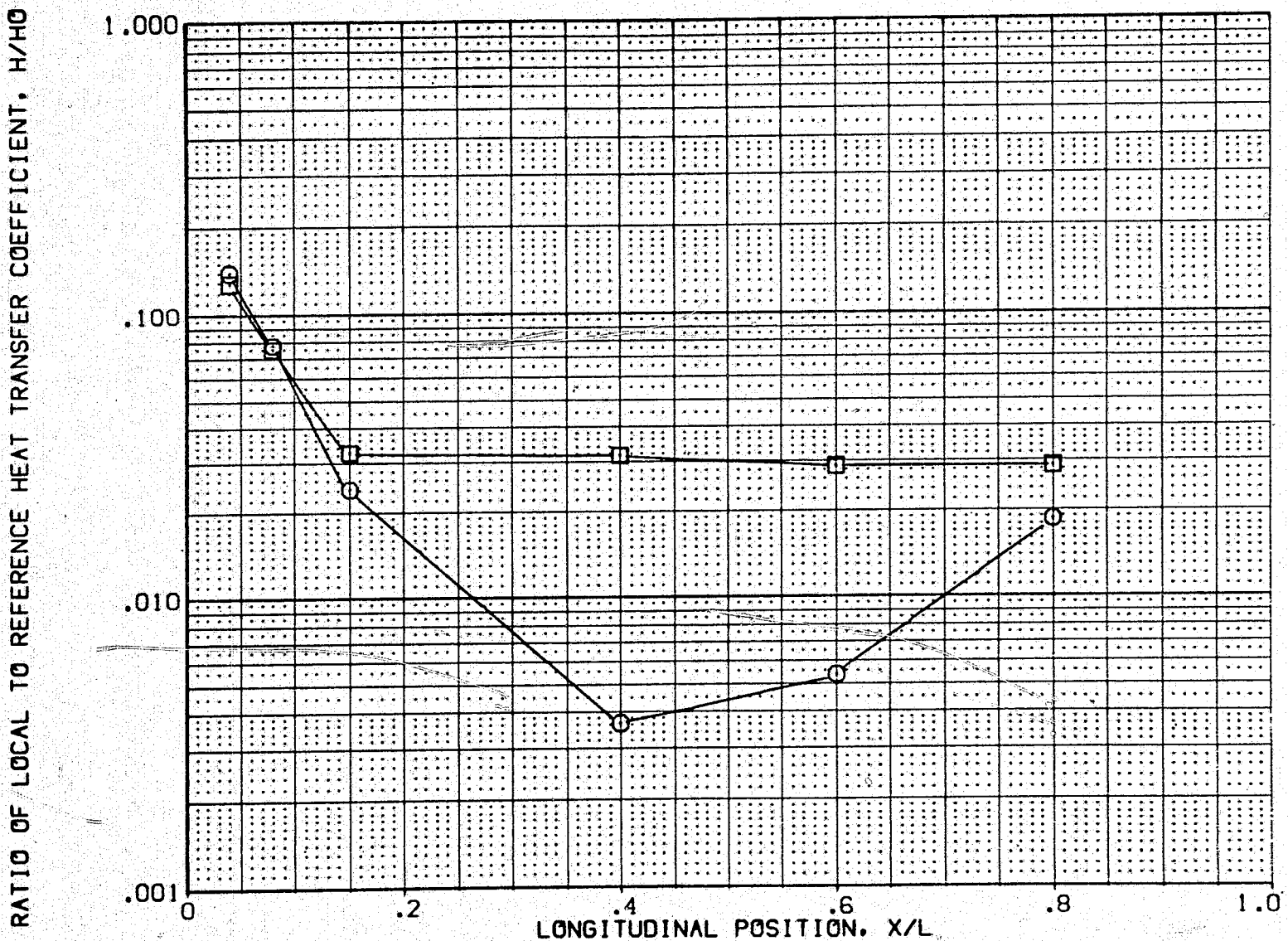


FIG. 31 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = .000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT17)	○	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT18)	□	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	5.000

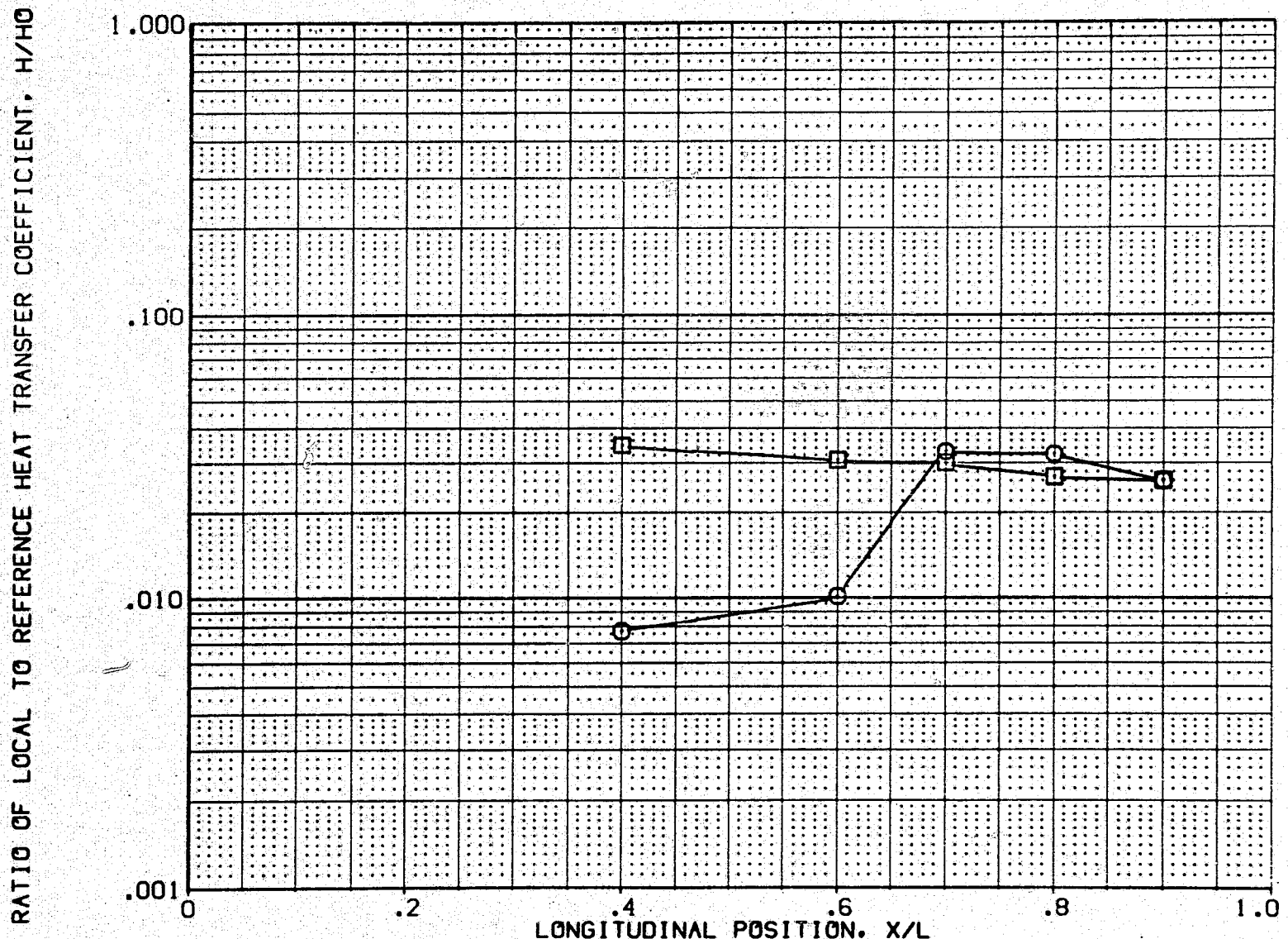


FIG. 31 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 45.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT17) ○	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT18) □	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	5.000

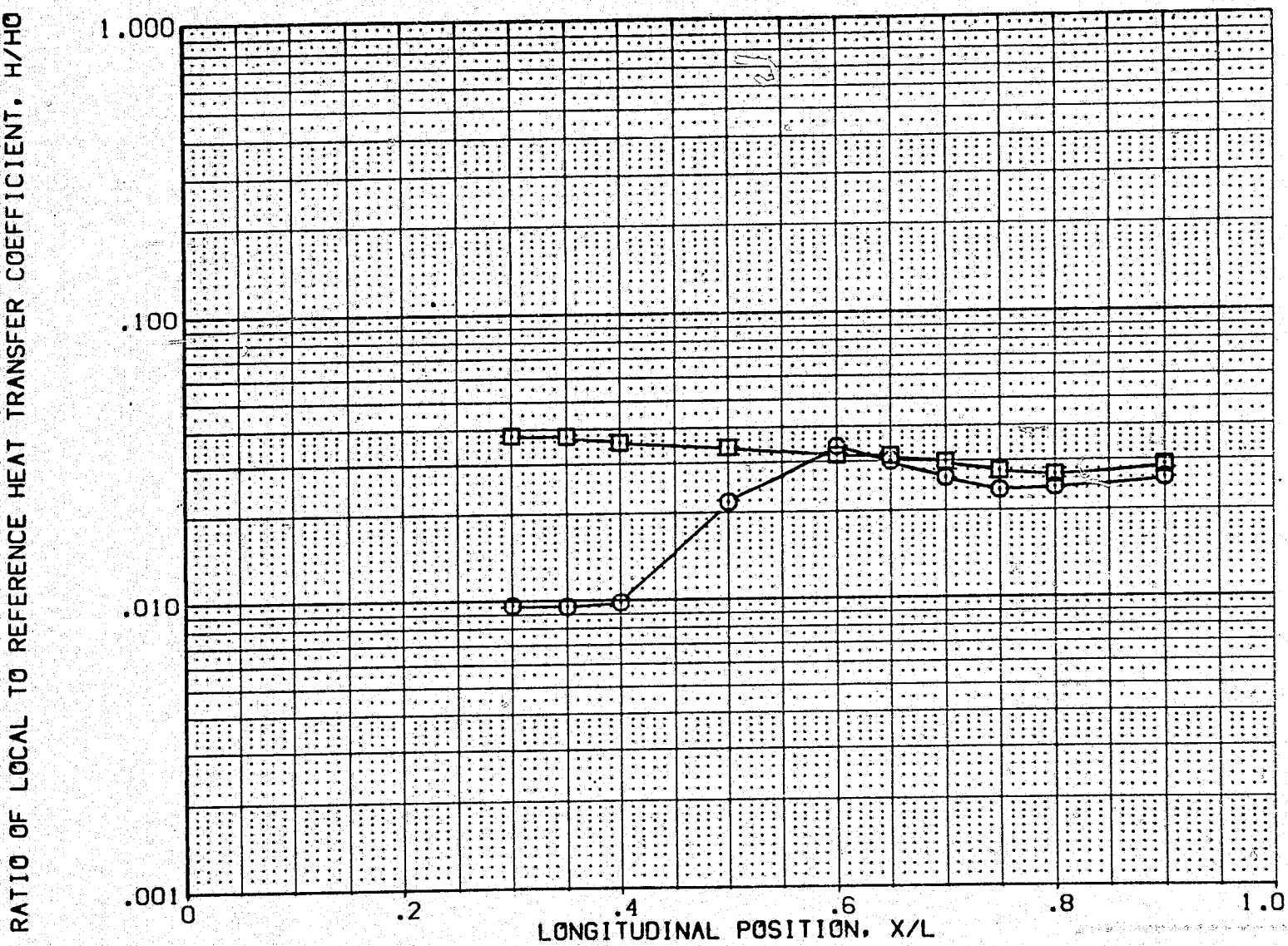


FIG. 31 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 67.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT17)	○	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT18)	□	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	5.000

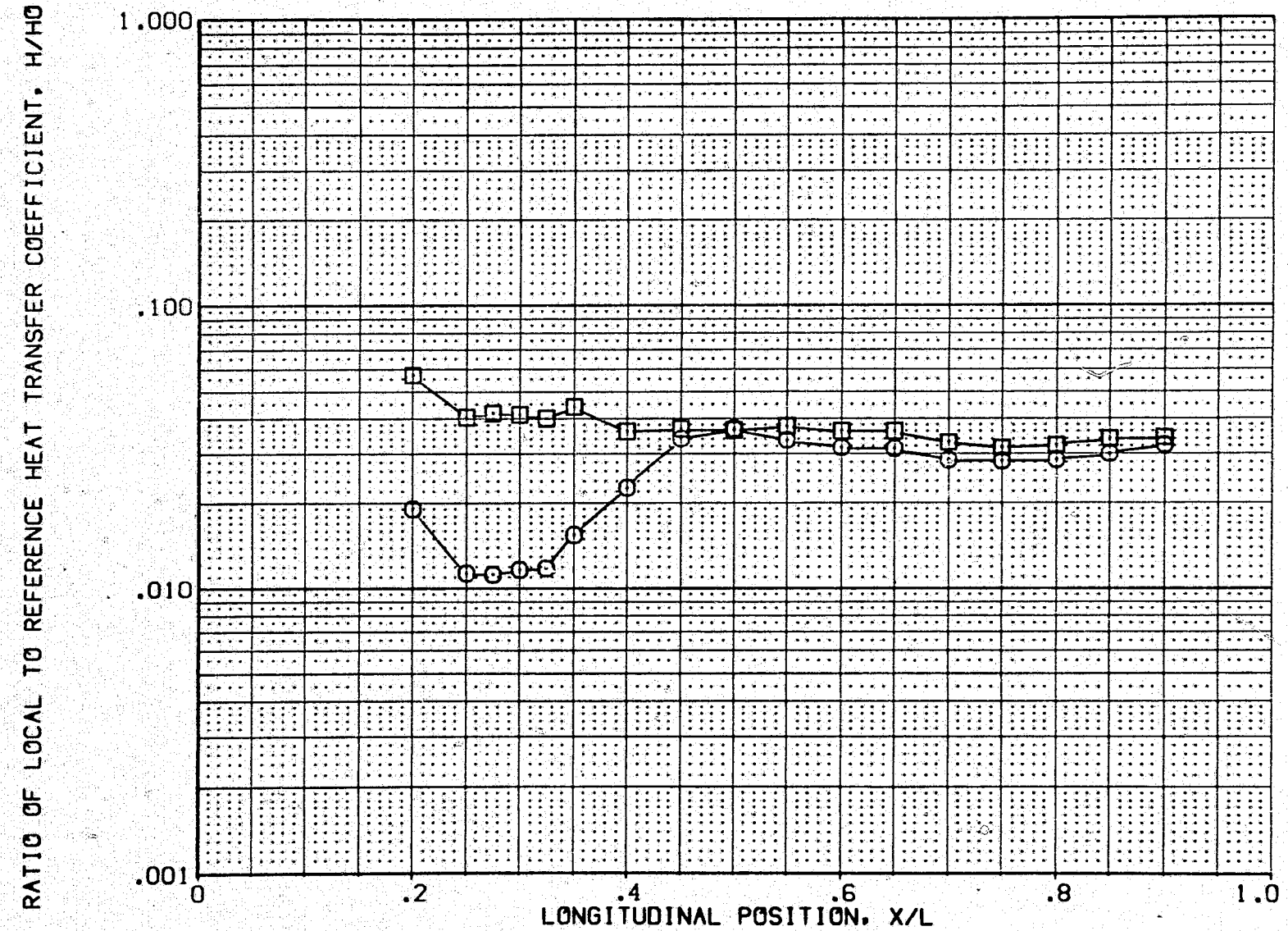


FIG. 31 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT17) ○	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT18) □	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	5.000

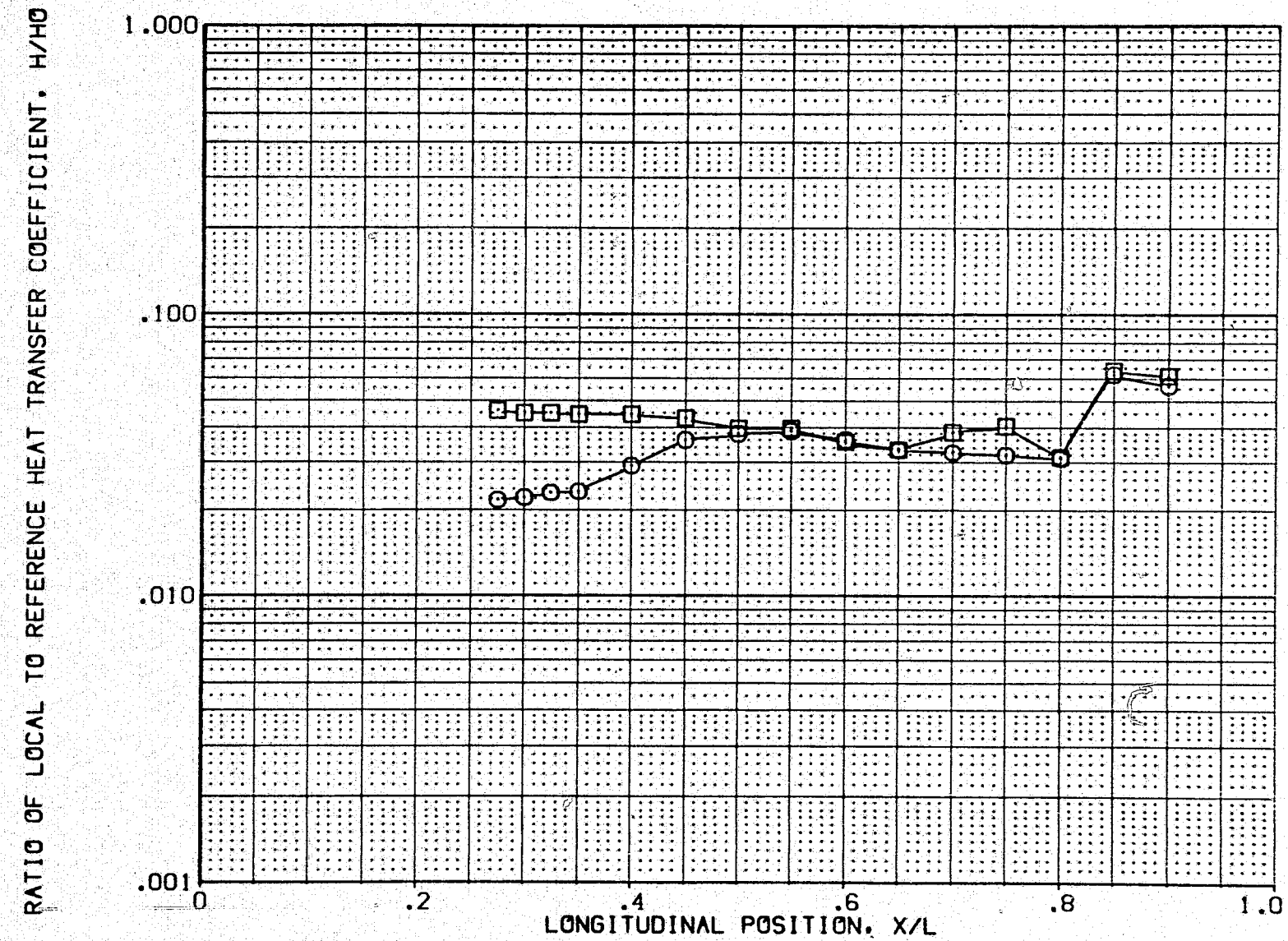


FIG. 31 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 112.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT17)	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT18)	ARC 3.5-185 IH20 T15	EXTERNAL TANK	-5.000	.000	5.300	5.000

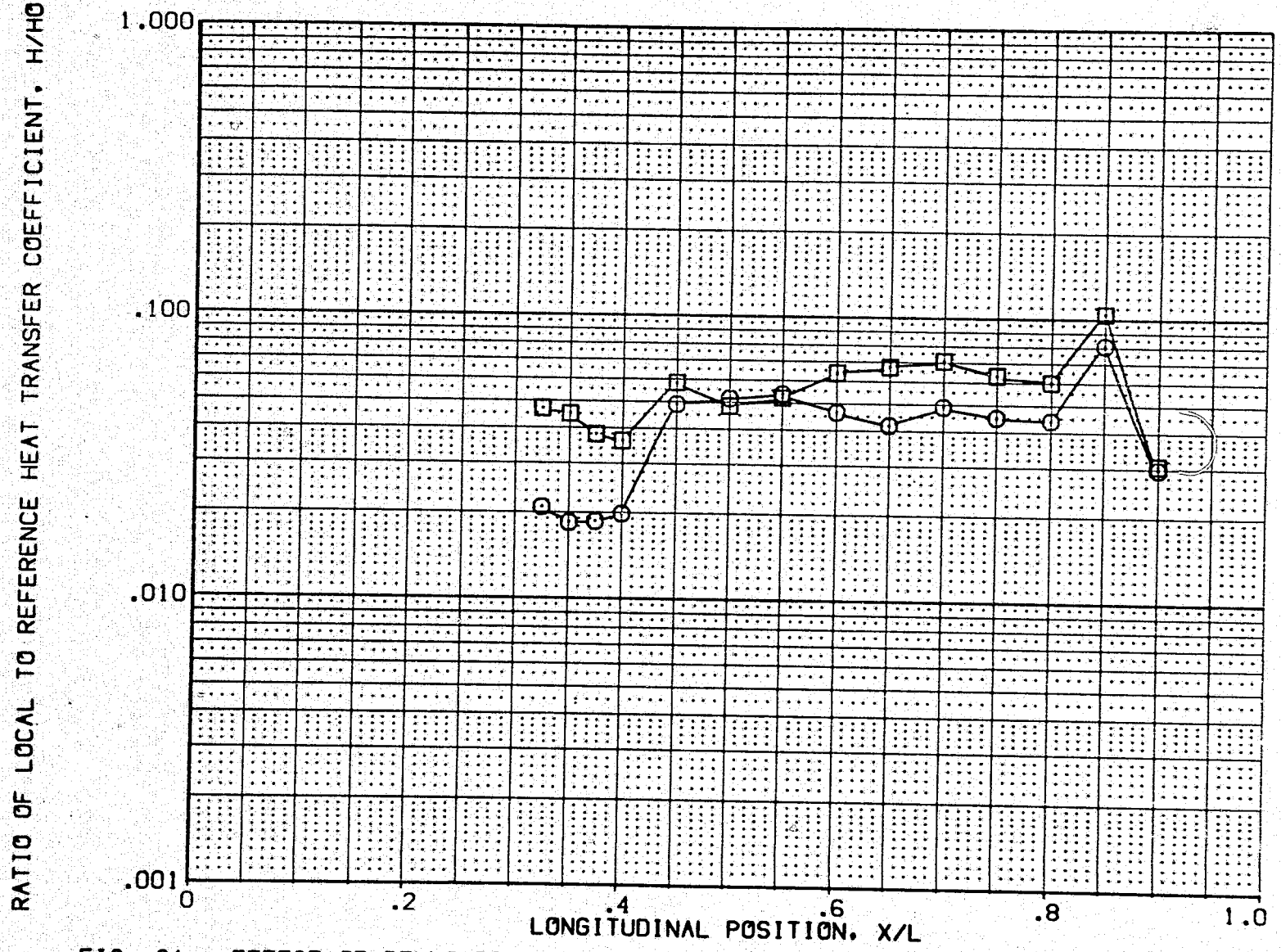


FIG. 31 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 135.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT17)	○	ARC 3.5-185 IH20 TI5	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT18)	□	ARC 3.5-185 IH20 TI5	EXTERNAL TANK	-5.000	.000	5.300	5.000

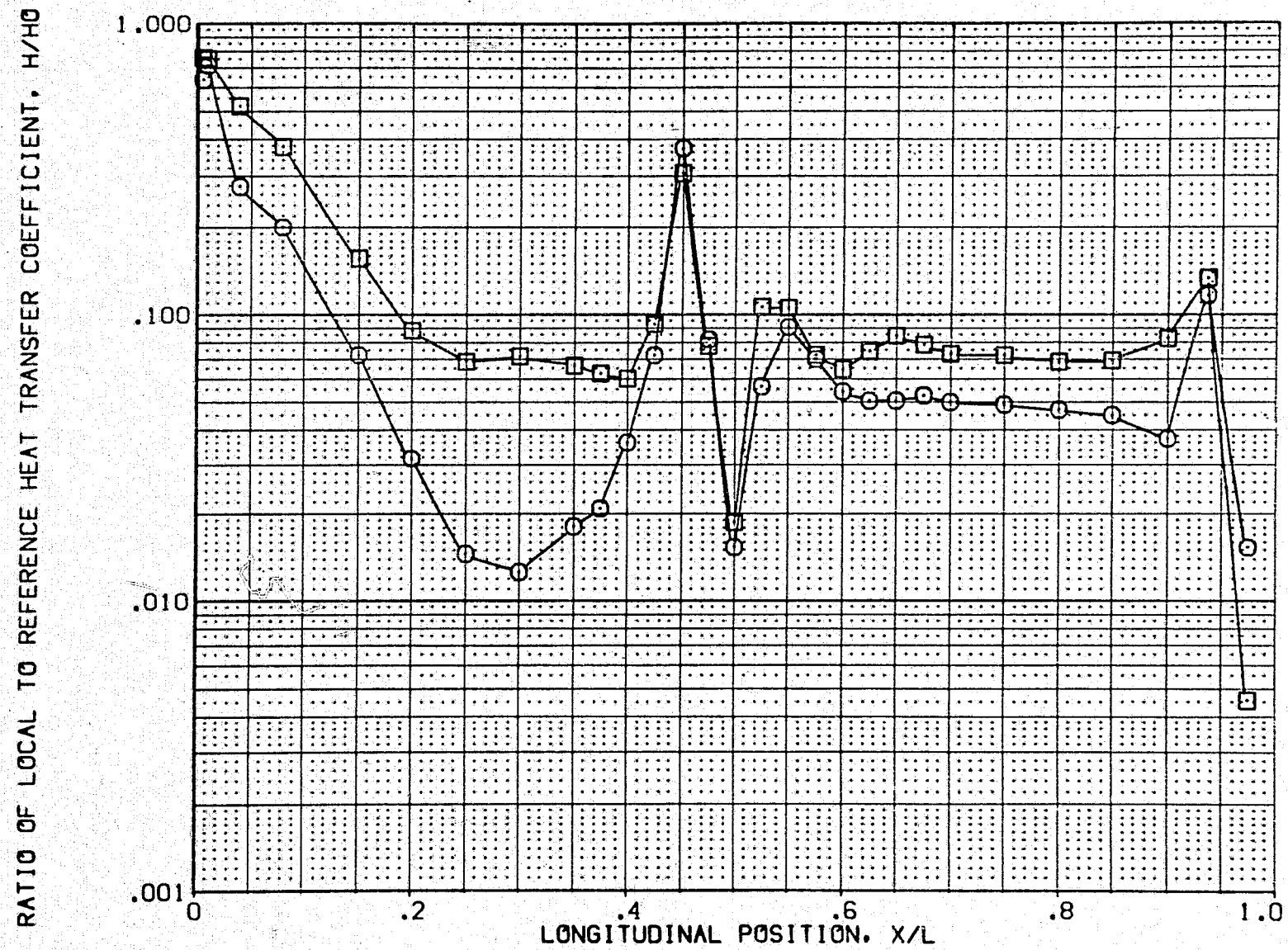


FIG. 31 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT21) ○	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT22) □	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	5.000

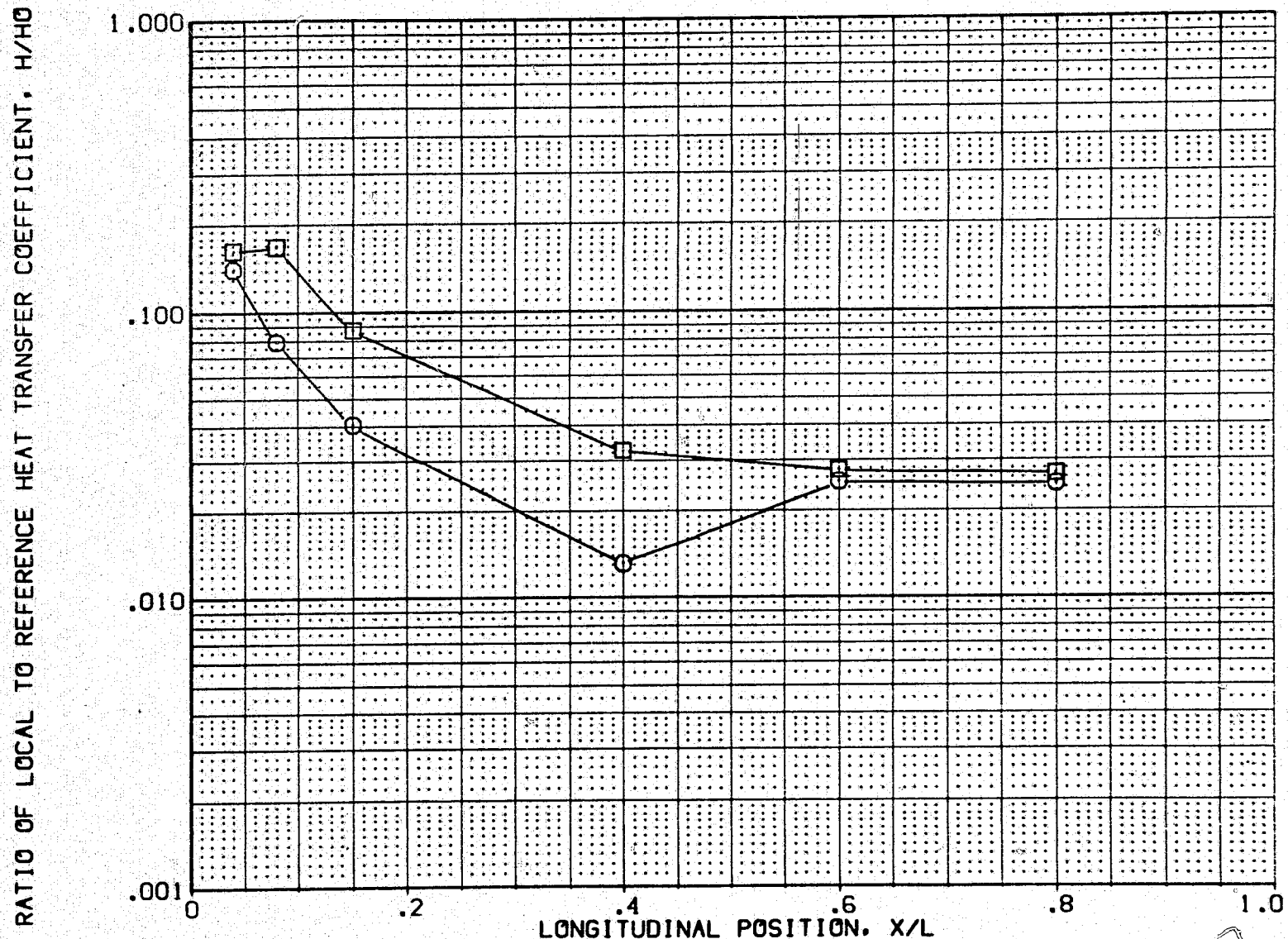


FIG. 32 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT21) ○	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT22) □	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	5.000

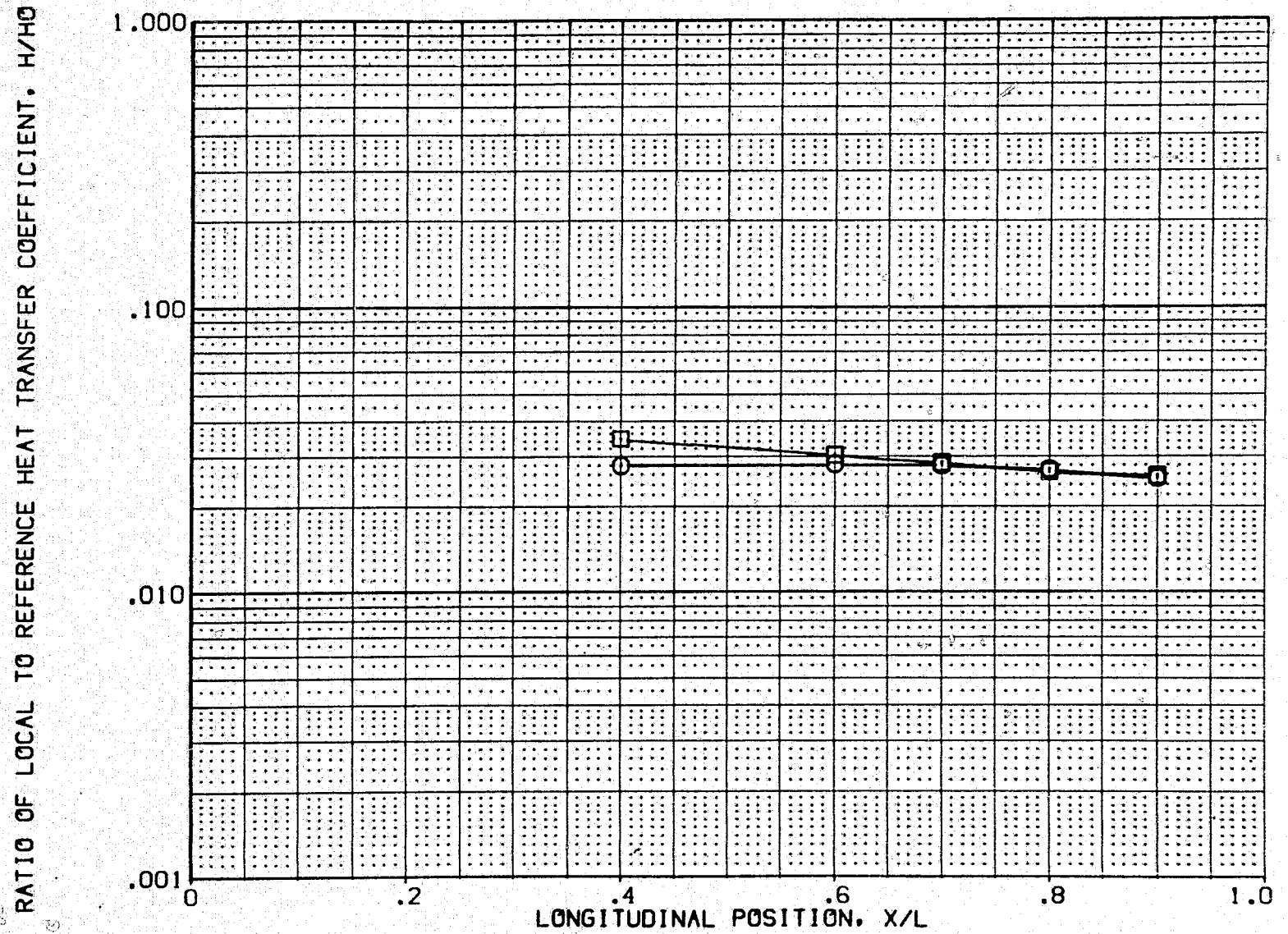


FIG. 32 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 45.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT21)	○	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT22)	□	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	5.000

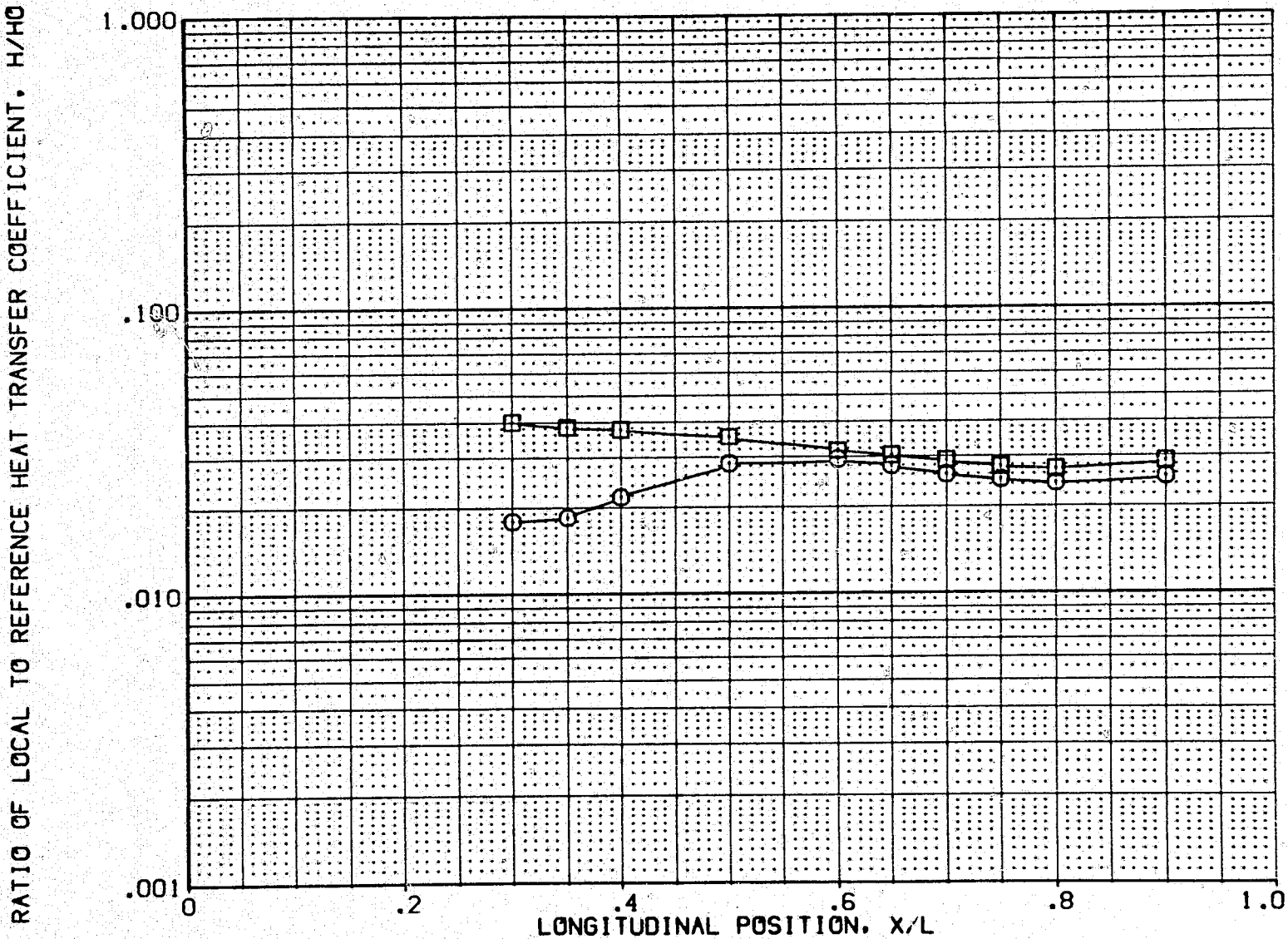


FIG. 32 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 67.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT21) ○	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT22) □	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	5.000

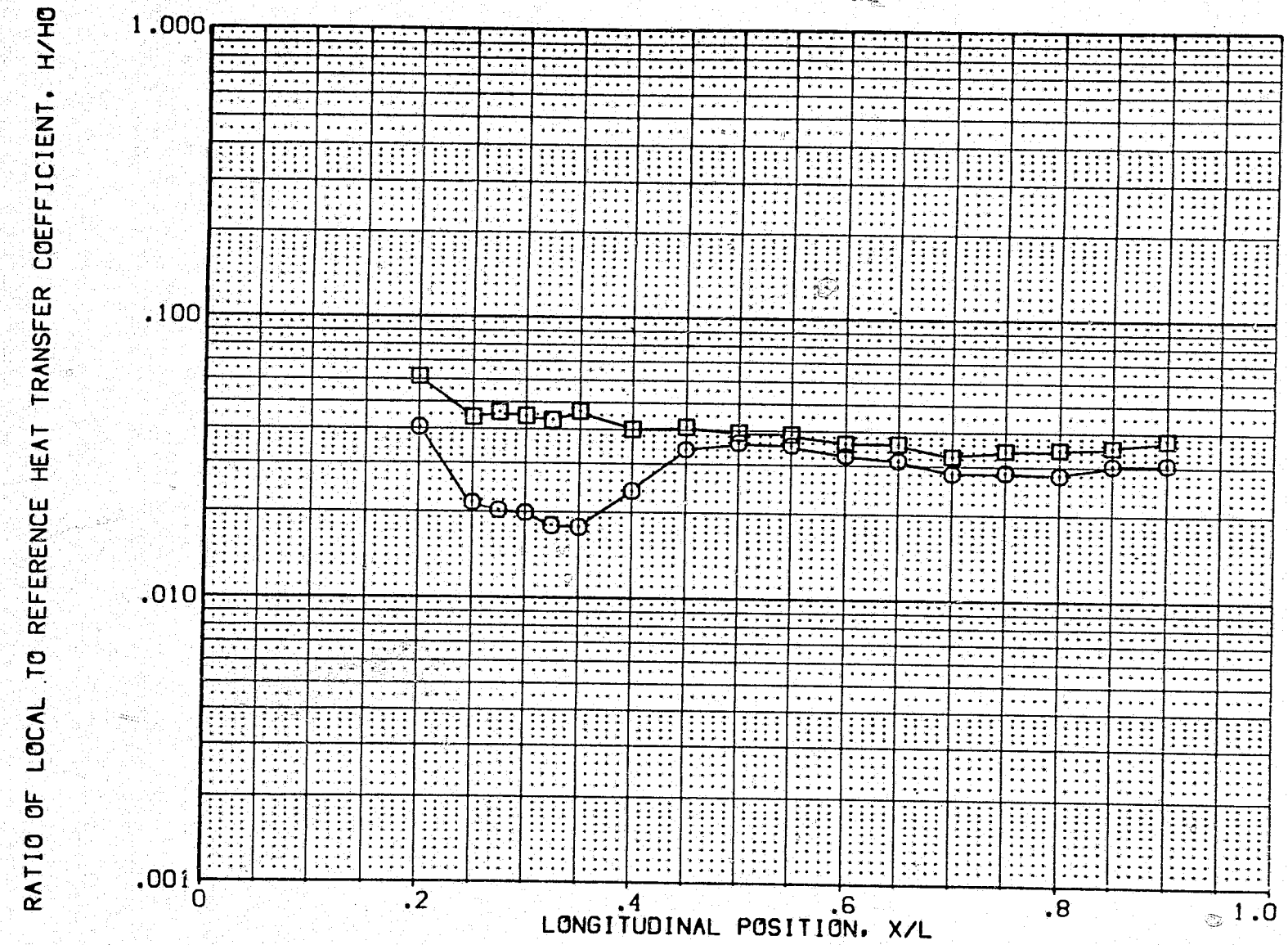


FIG. 32 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 90.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT21)	○	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT22)	□	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	5.000

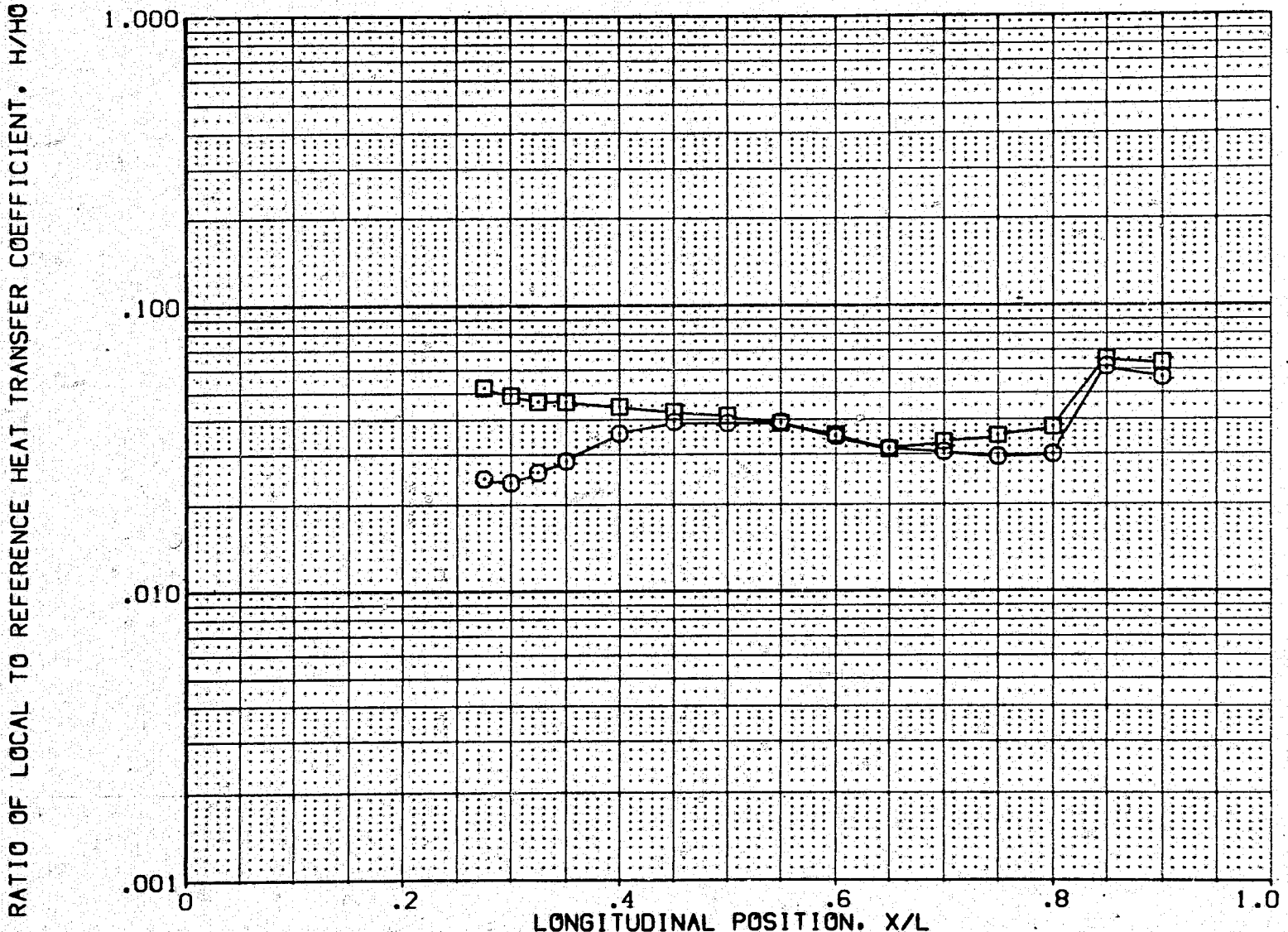


FIG. 32 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 112.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT21) ○	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT22) □	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	5.000

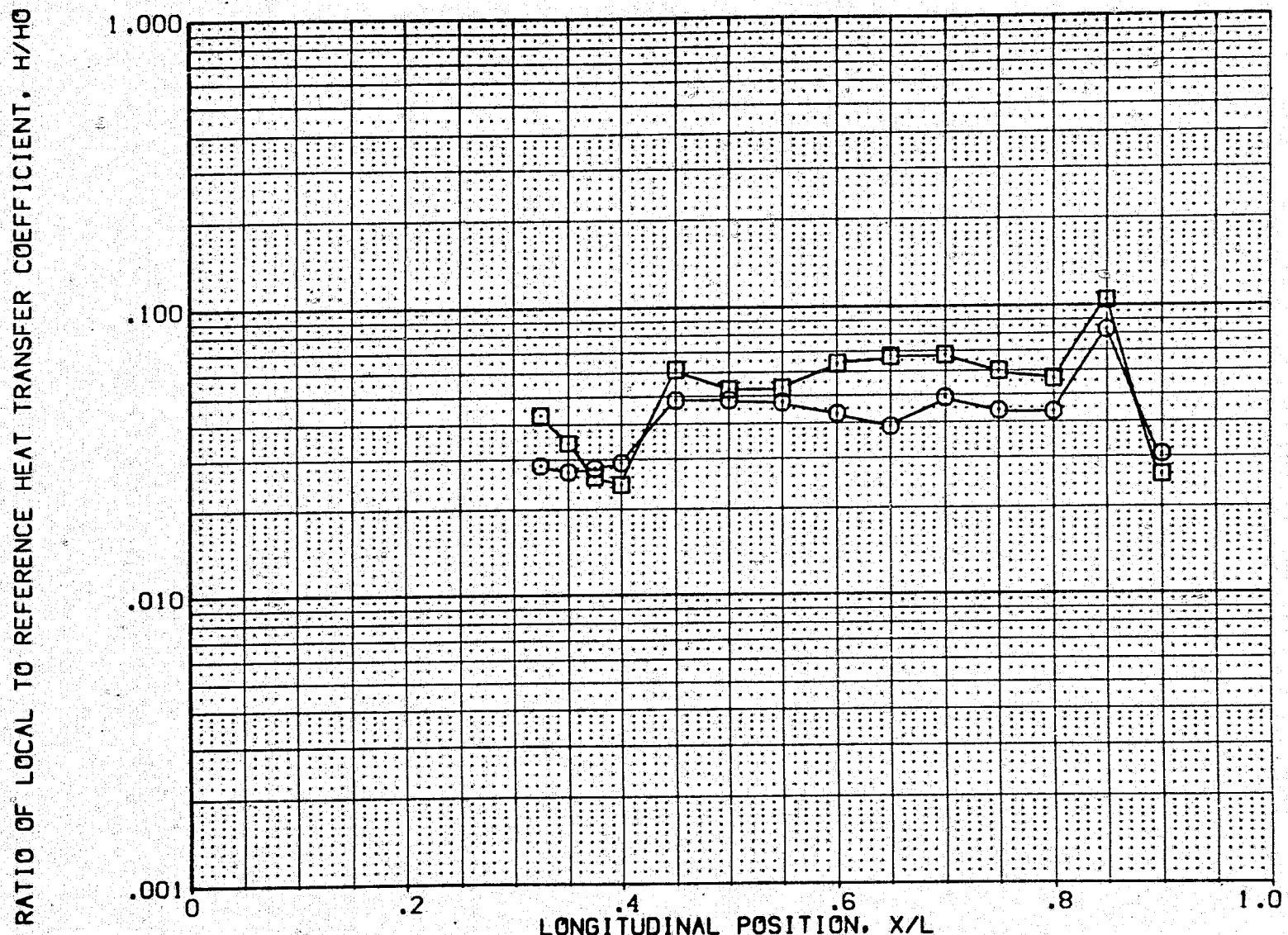


FIG. 32 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 135.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENT21)	○	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	1.500
(RENT22)	□	ARC 3.5-185 IH20 T15+X28	EXTERNAL TANK	-5.000	.000	5.300	5.000

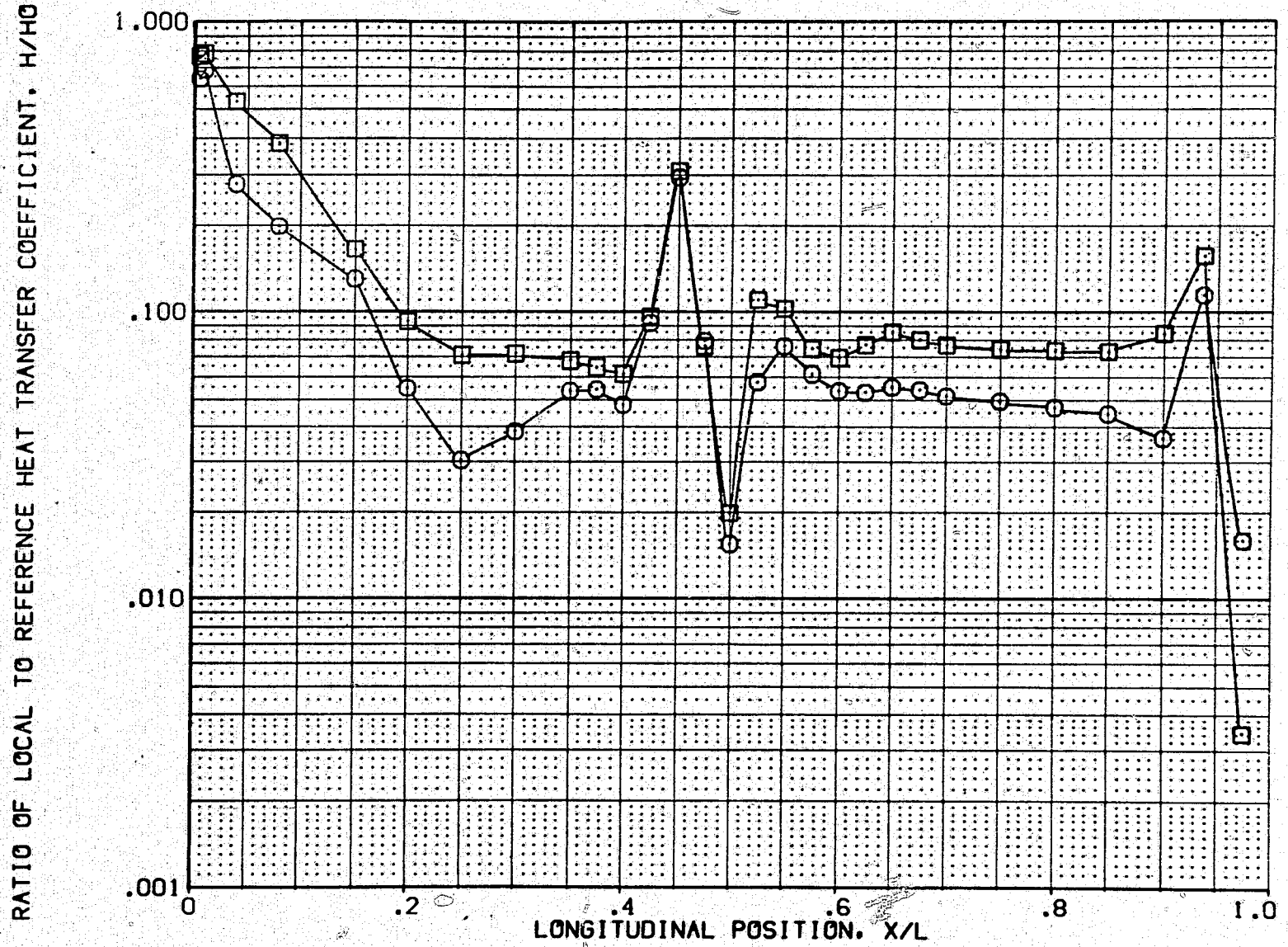


FIG. 32 EFFECT OF REYNOLDS NO. - EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 THETA = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS23)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS26)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

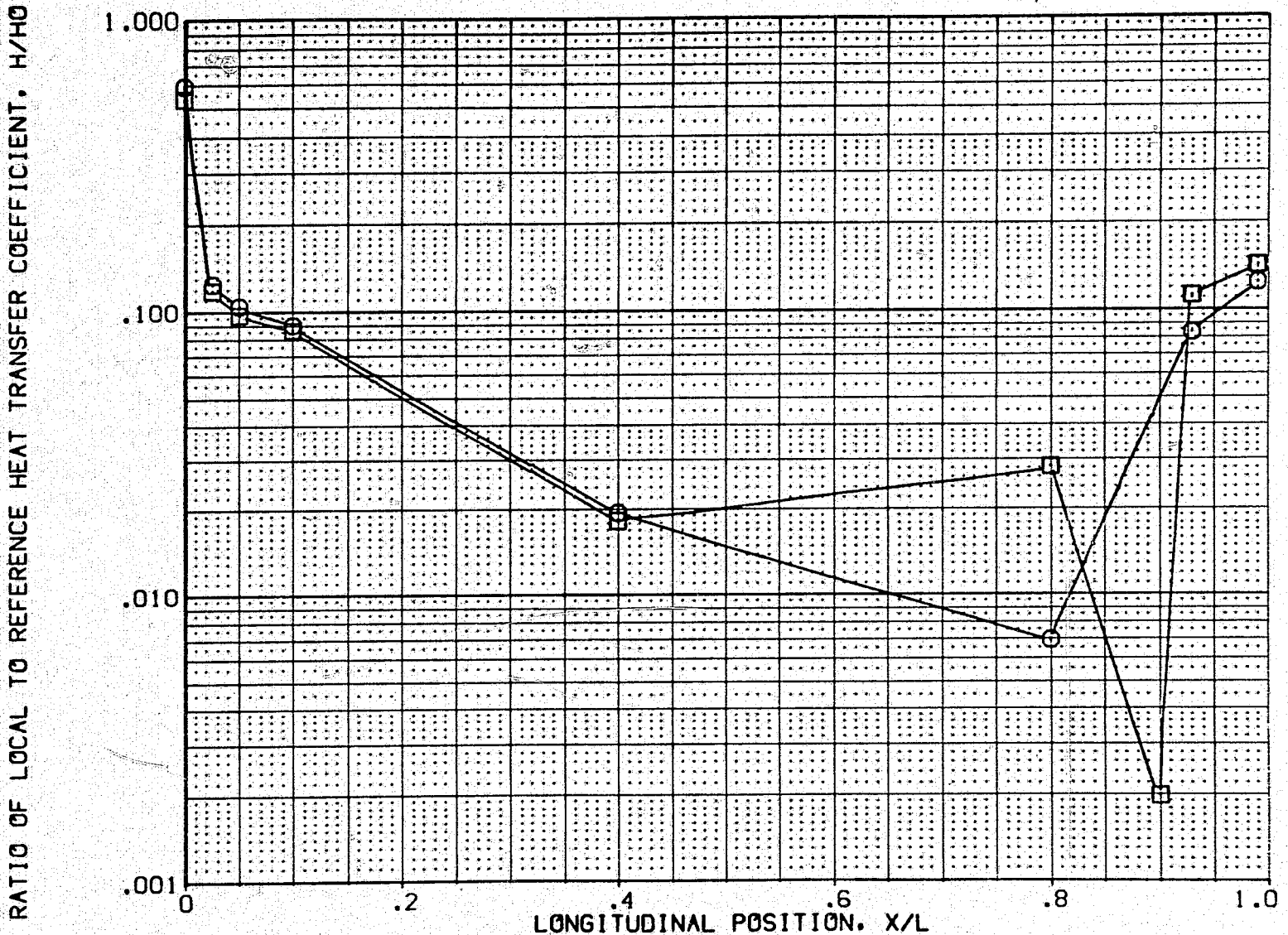


FIG. 33 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS23) ○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS26) □	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

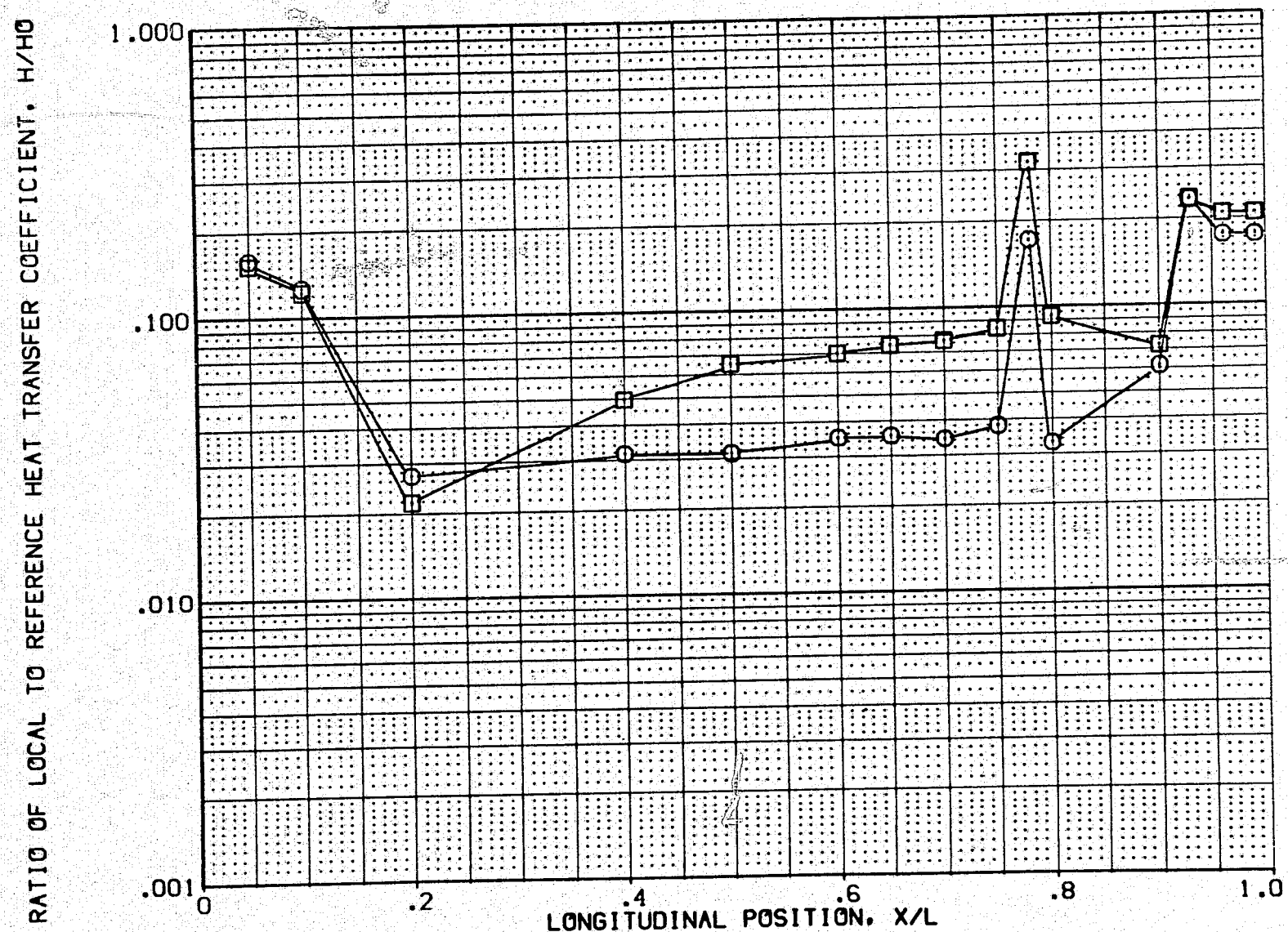


FIG. 33 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS23)	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS26)	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

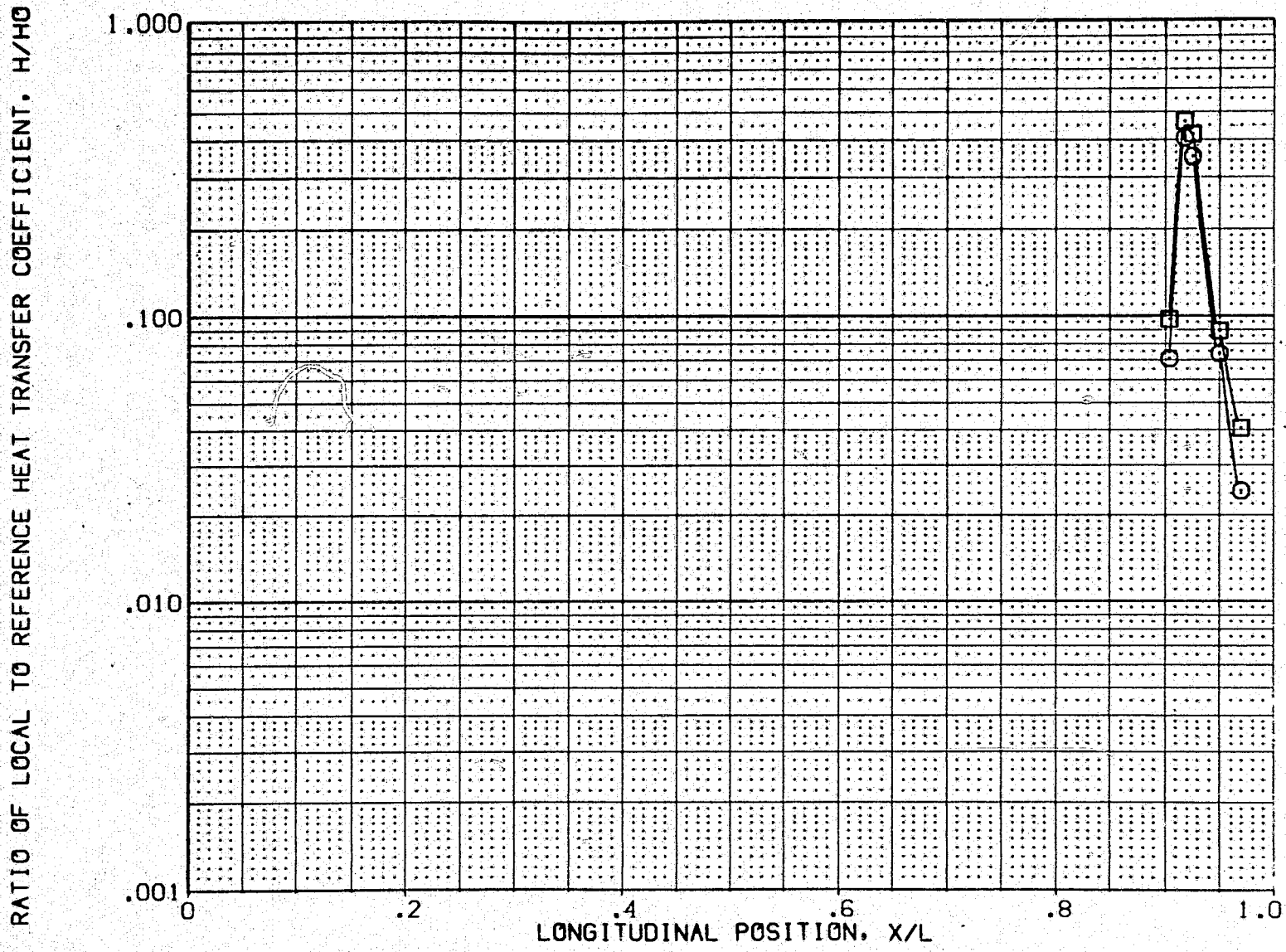


FIG. 33 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 210.000

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS23)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS26)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

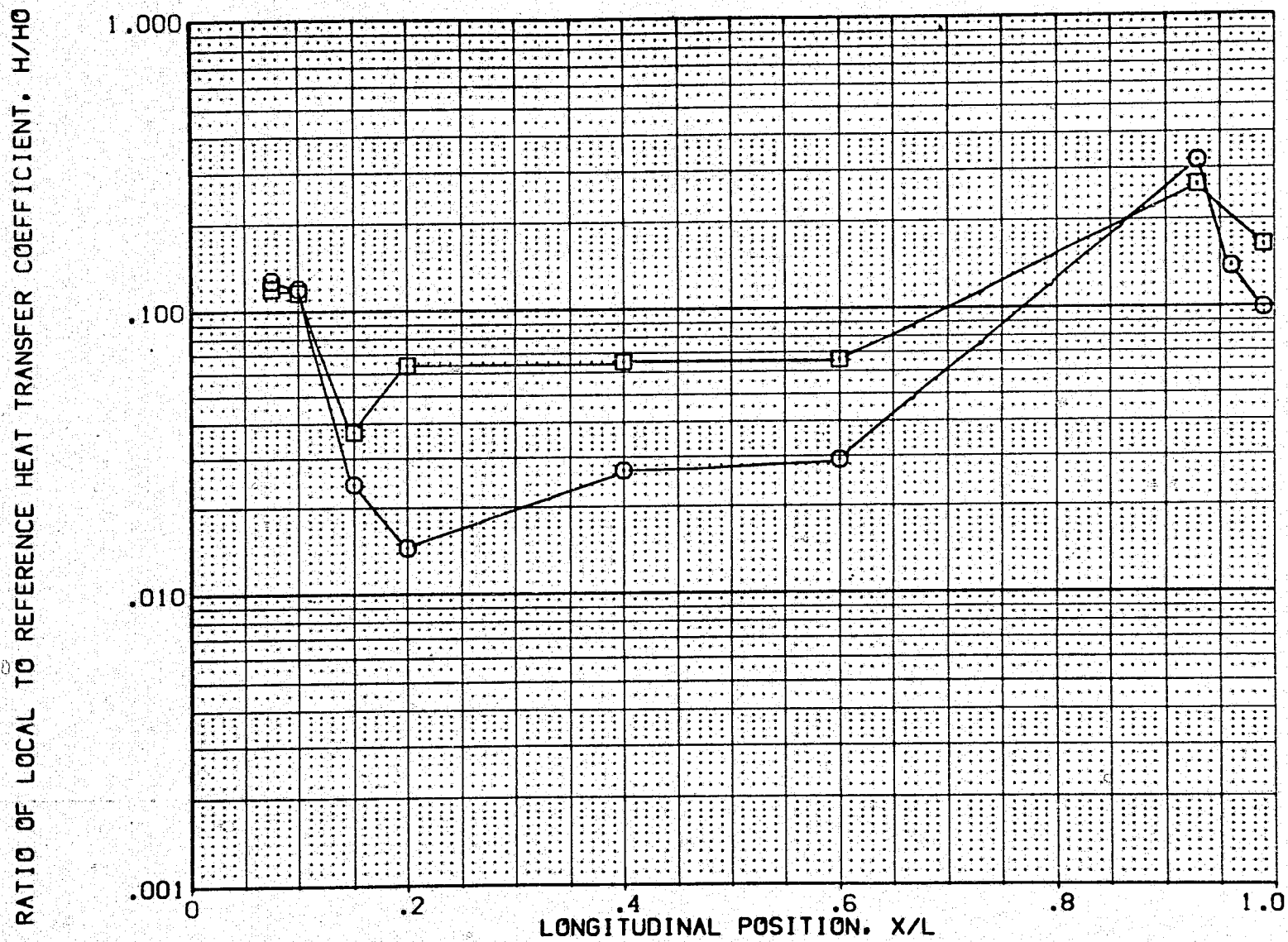


FIG. 33 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 225.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS23)	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS26)	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

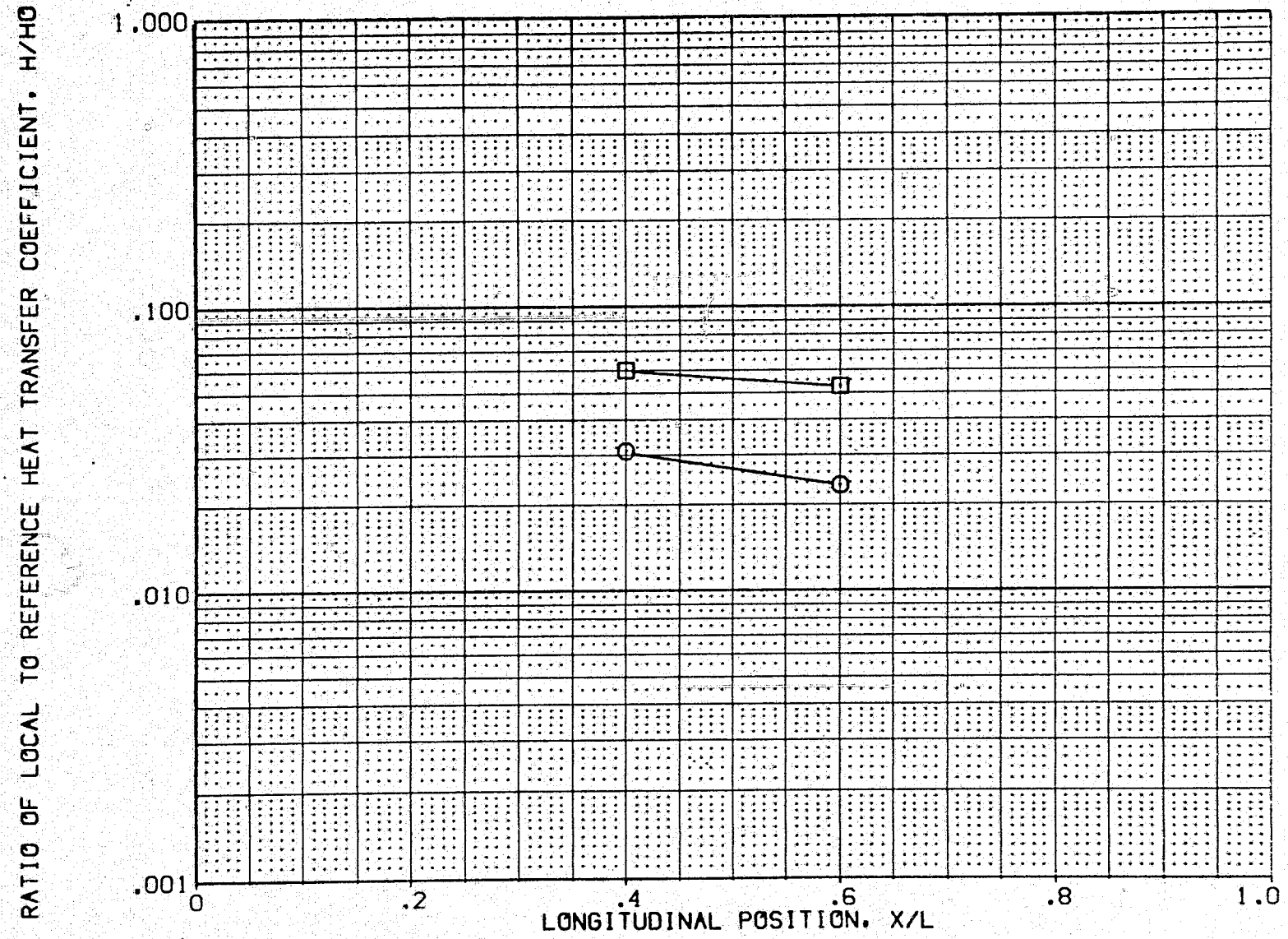


FIG. 33 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 247.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS23)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS26)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

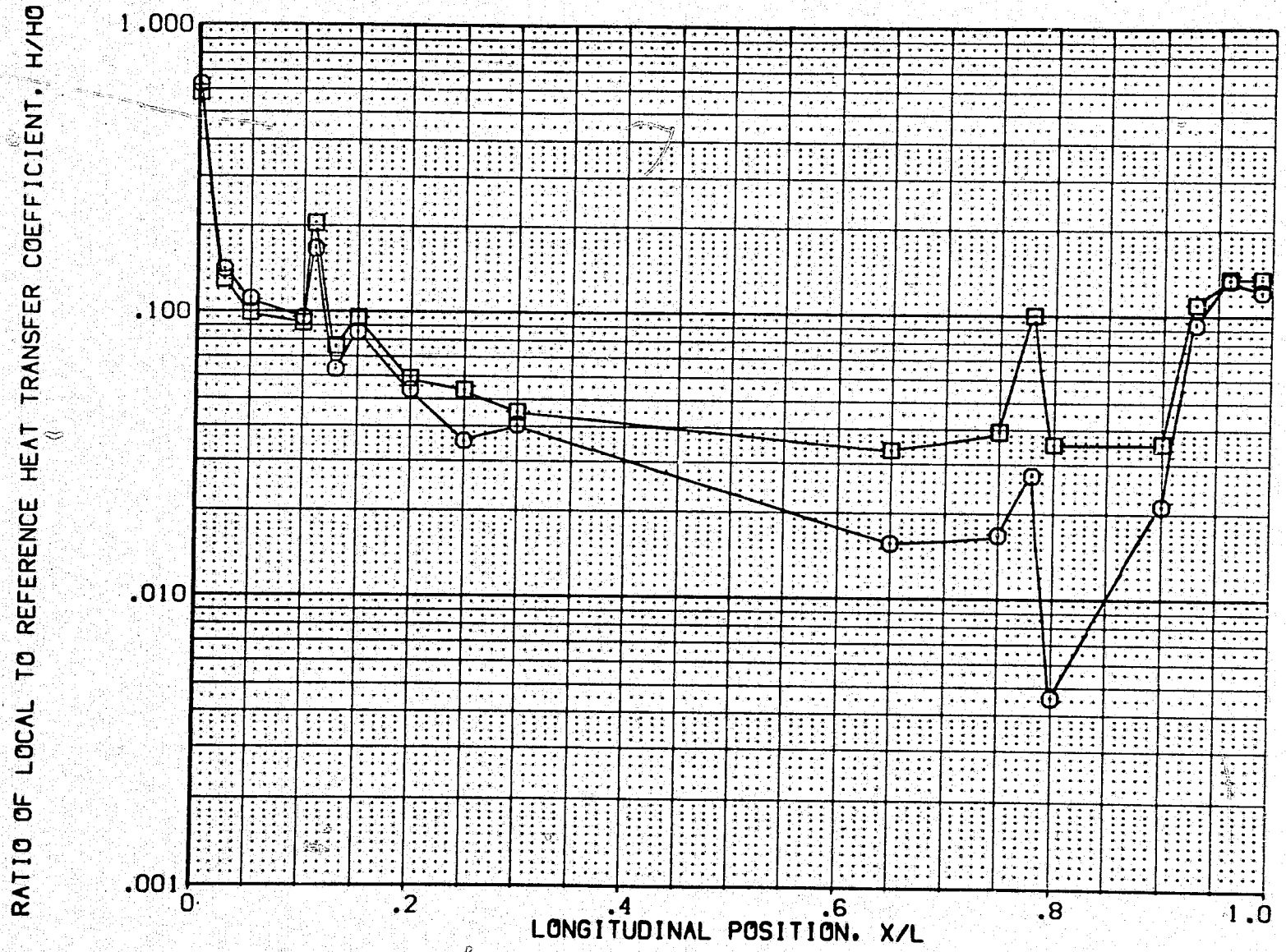


FIG. 33 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 270.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS23)	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS26)	ARC 3.5-185 IH20 S8	SOLID BOOSTER	-5.000	.000	5.300	5.000

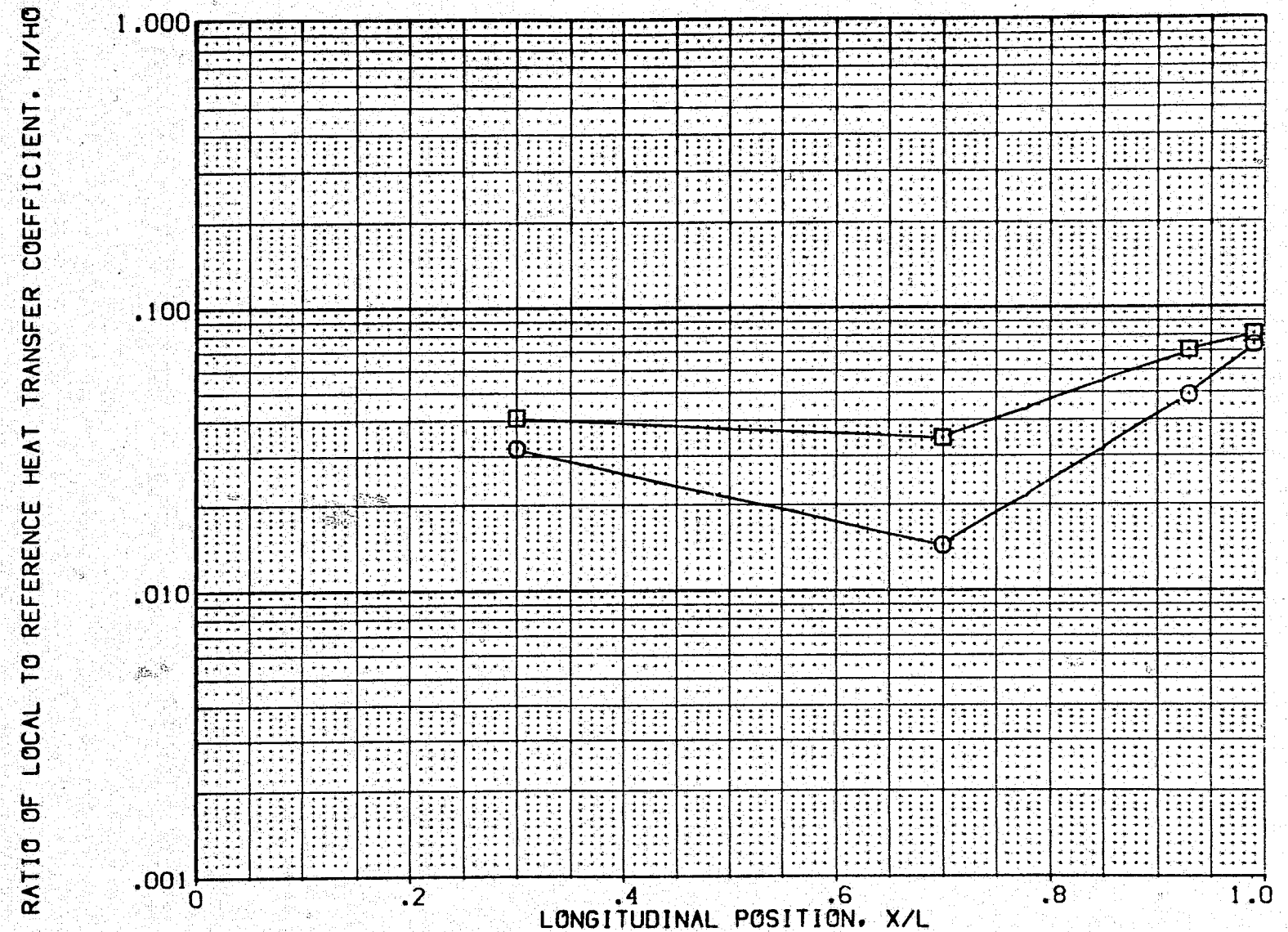


FIG. 33 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 315.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS24) ○	ARC 3.5-185 1H20 S8	SOLID BOOSTER	15.000	.000	5.300	1.500
(RENS27) □	ARC 3.5-185 1H20 S8	SOLID BOOSTER	15.000	.000	5.300	5.000

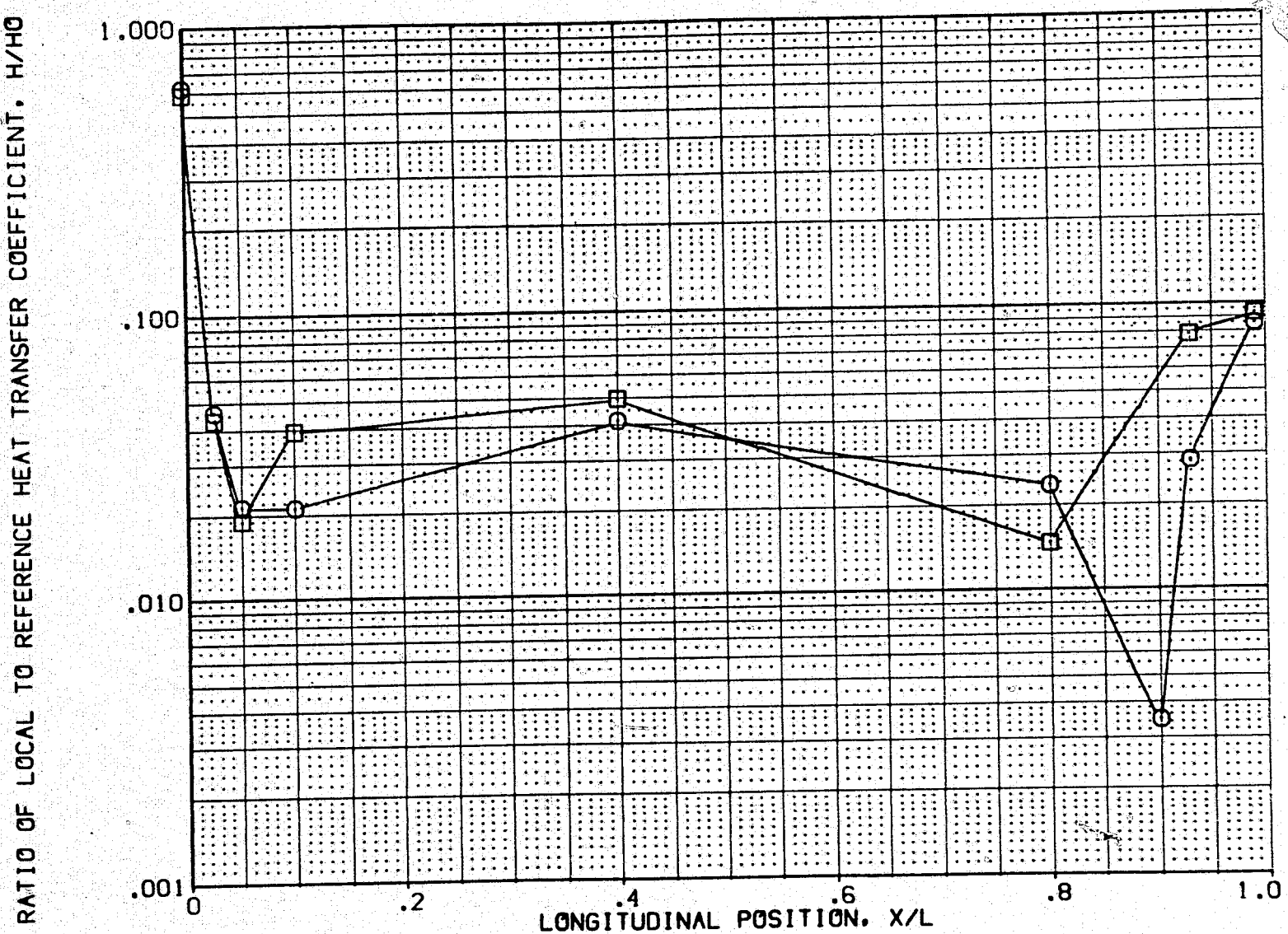


FIG. 34 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS24) ○	ARC 3.5-185 1H20 58	SOLID BOOSTER	15.000	.000	5.300	1.500
(RENS27) □	ARC 3.5-185 1H20 58	SOLID BOOSTER	15.000	.000	5.300	5.000

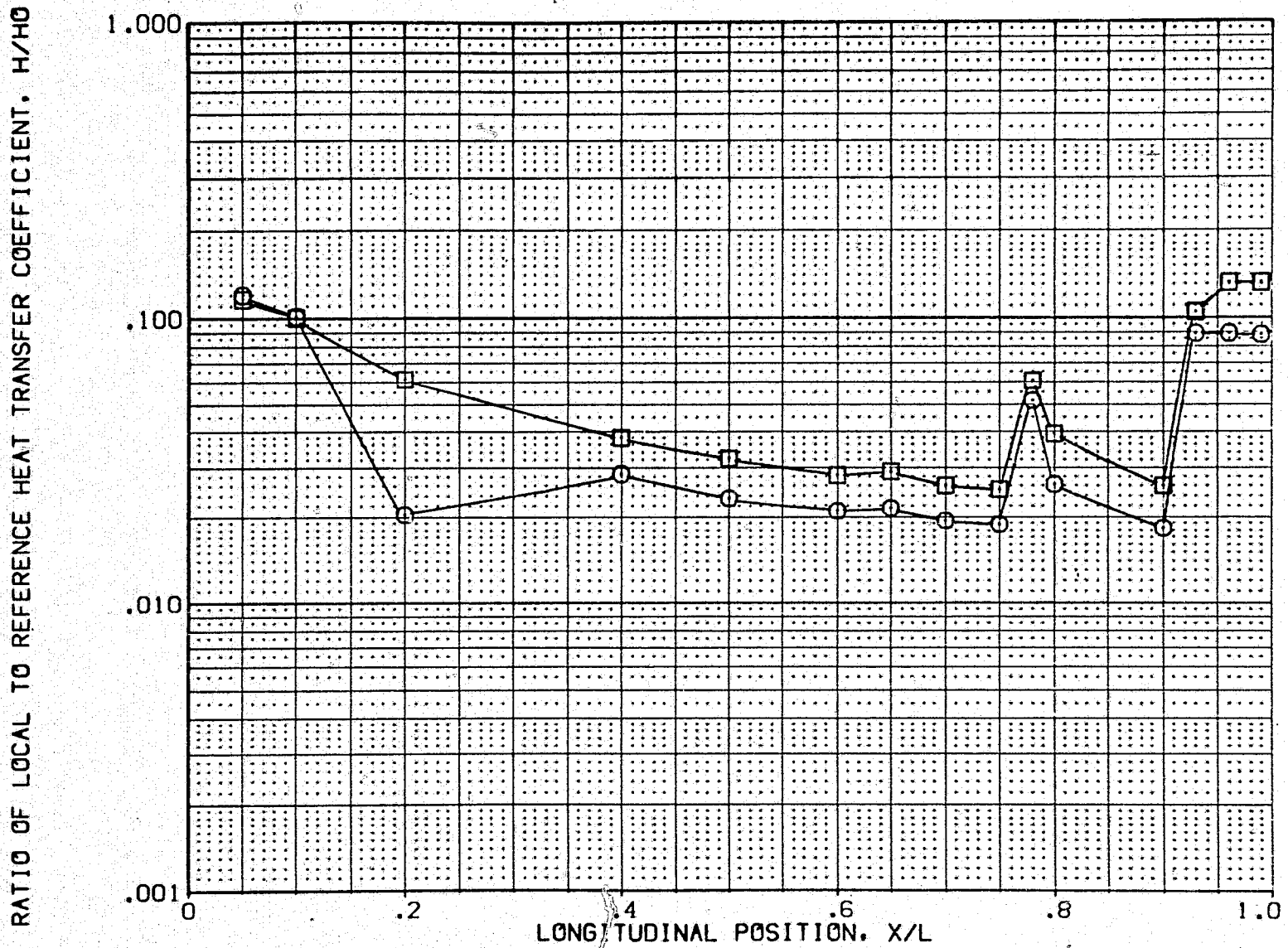


FIG. 34 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS24)	○	ARC 3.5-185 IH2O S8	SOLID BOOSTER	15.000	.000	5.300	1.500
(RENS27)	□	ARC 3.5-185 IH2O S8	SOLID BOOSTER	15.000	.000	5.300	5.000

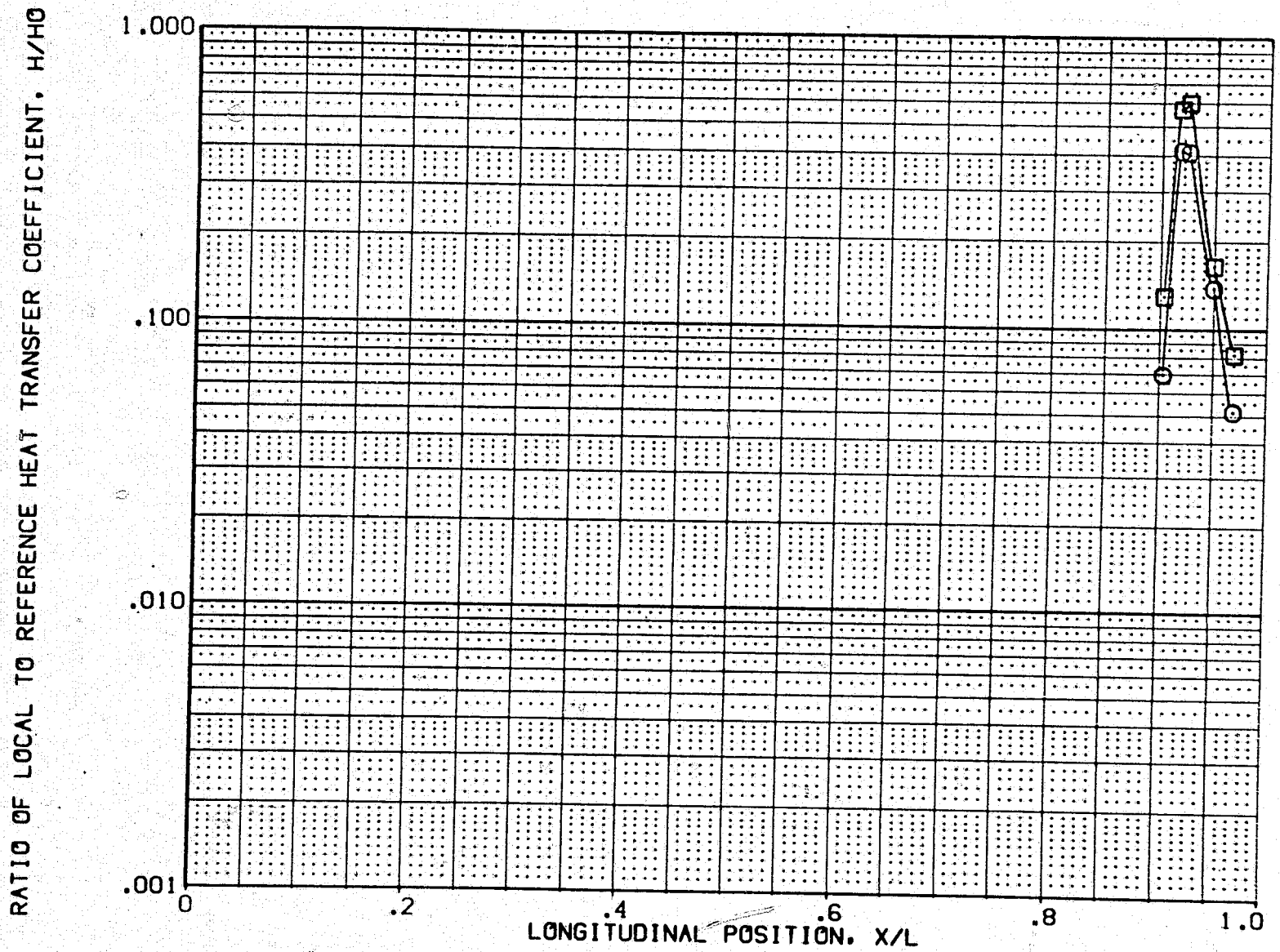


FIG. 34 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 210.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS24)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	15.000	.000	5.300	1.500
(RENS27)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	15.000	.000	5.300	5.000

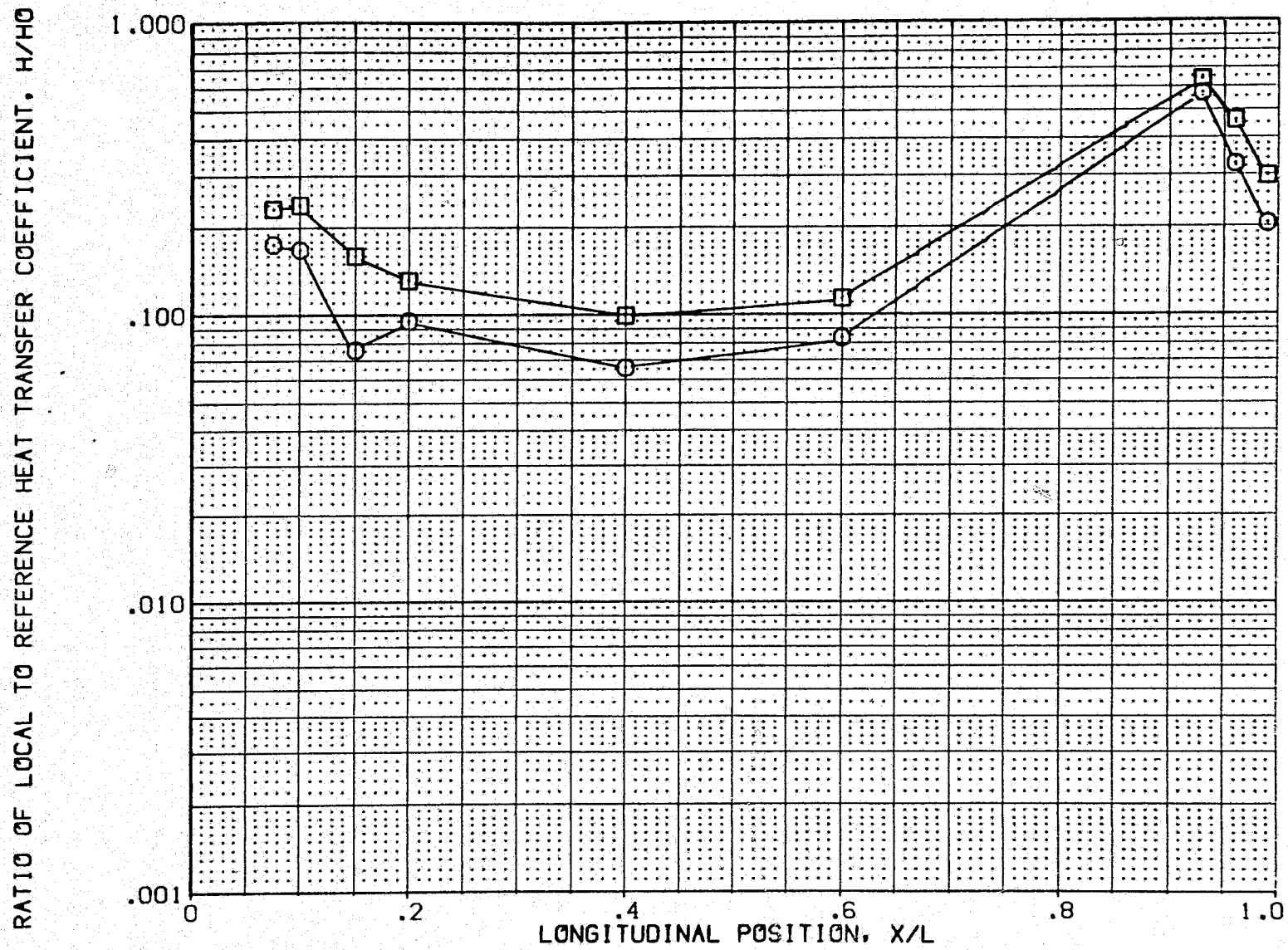


FIG. 34 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 225.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS24)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	15.000	.000	5.300	1.500
(RENS27)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	15.000	.000	5.300	5.000

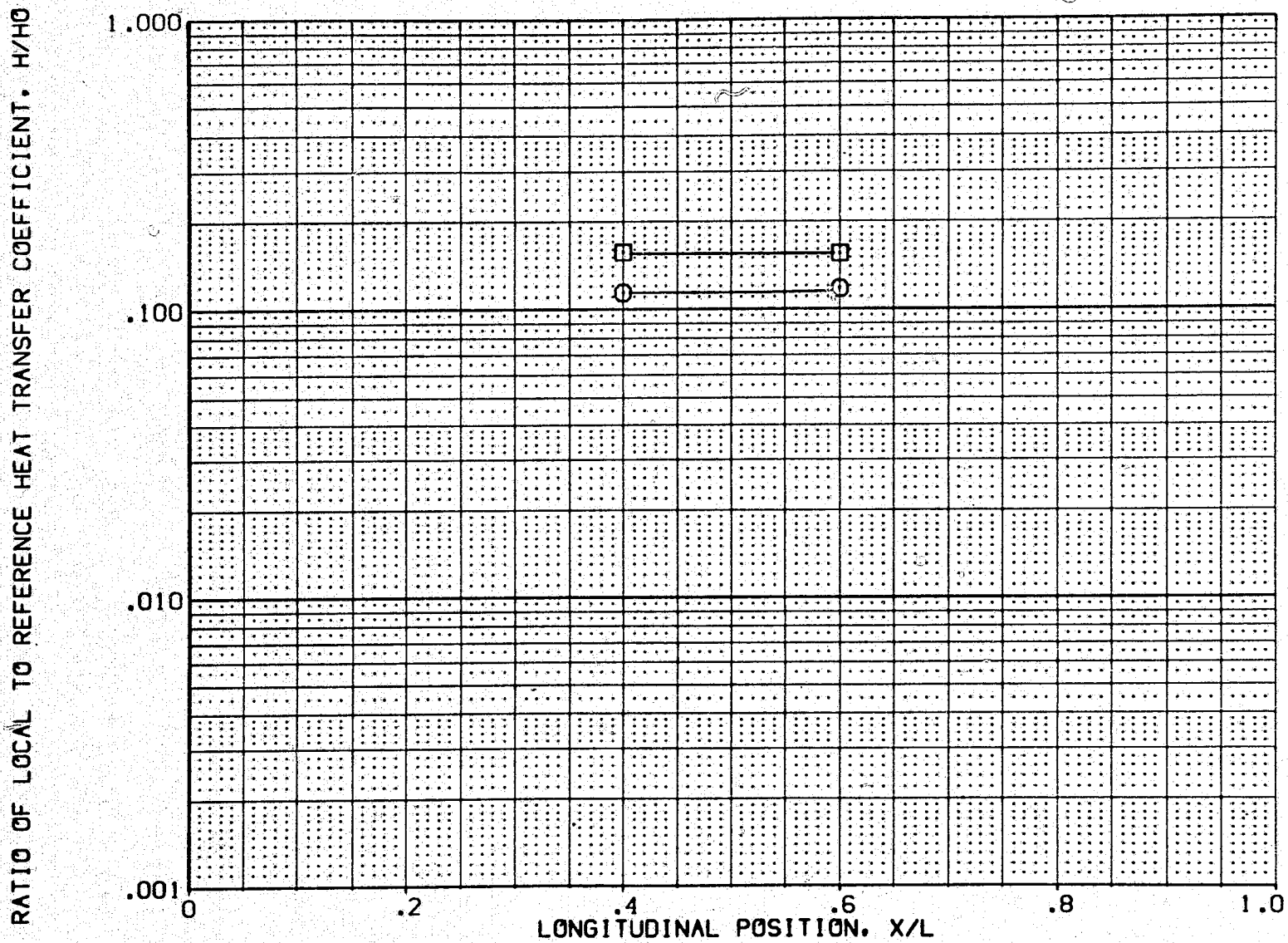


FIG. 34 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 247.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS24) ○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	15.000	.000	5.300	1.500
(RENS27) □	ARC 3.5-185 IH20 S8	SOLID BOOSTER	15.000	.000	5.300	5.000

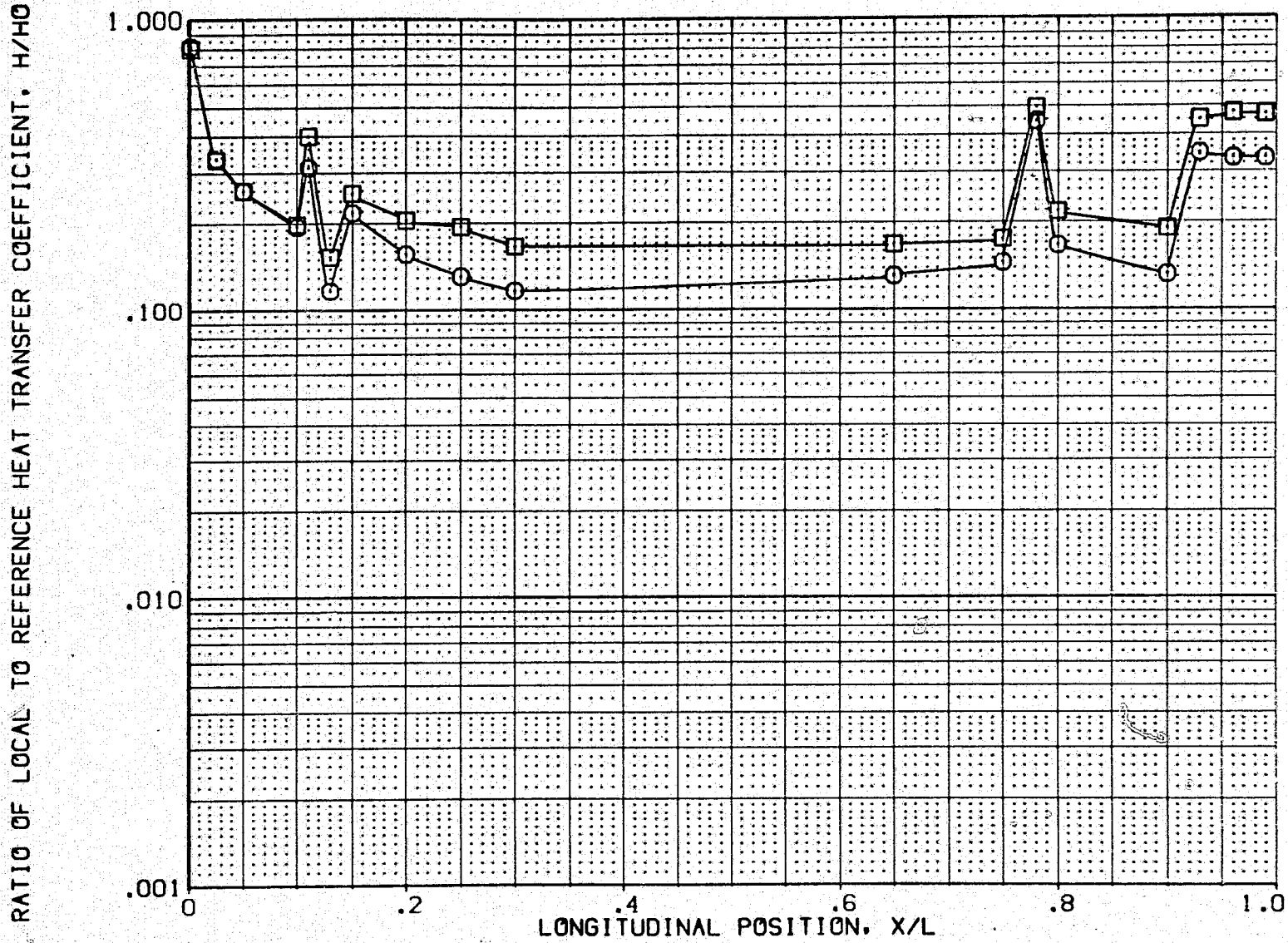


FIG. 34 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 270.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS24)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	15.000	.000	5.300	1.500
(RENS27)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	15.000	.000	5.300	5.000

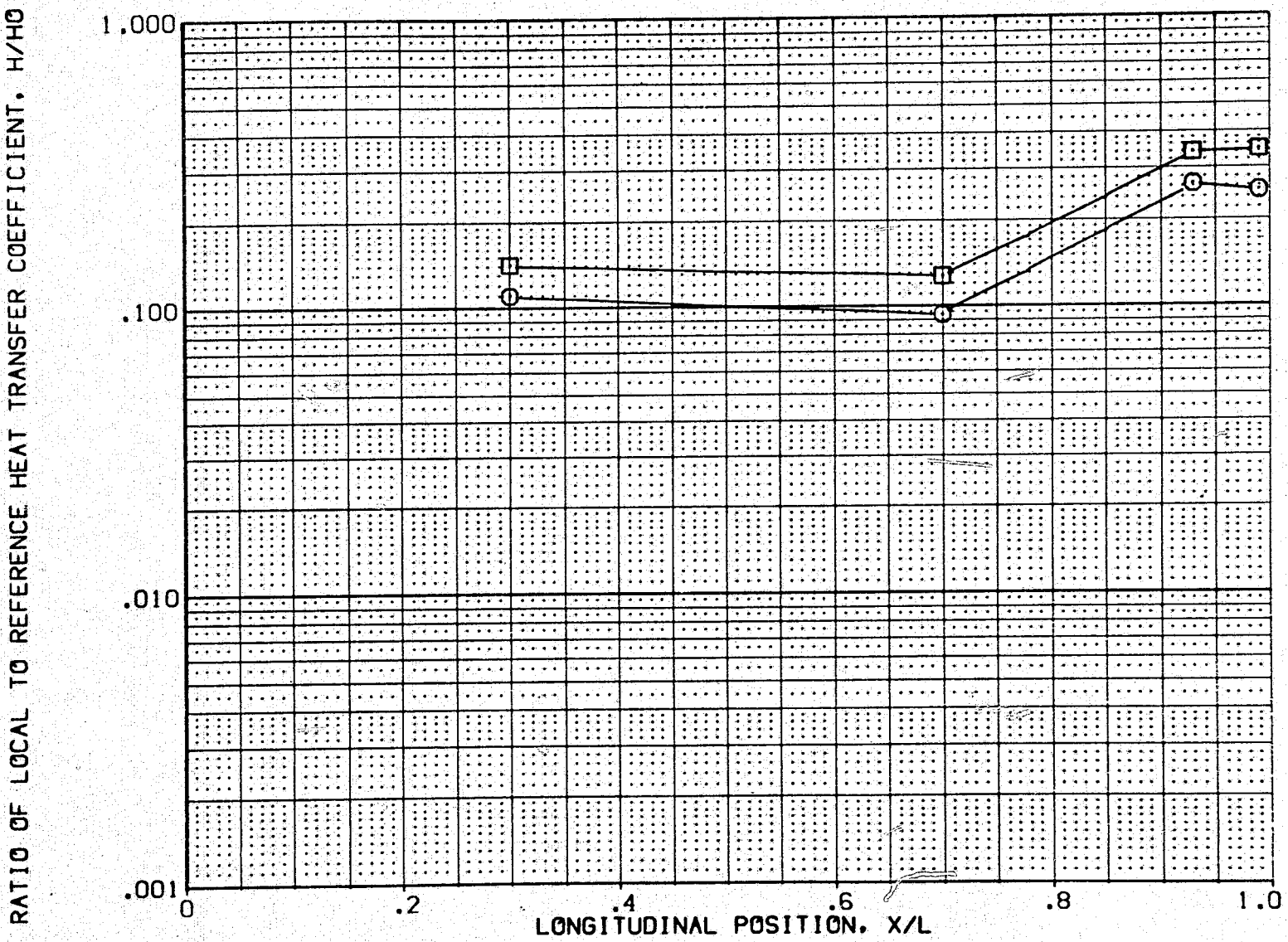


FIG. 34 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 315.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
('RENS25)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	1.500
('RENS28)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

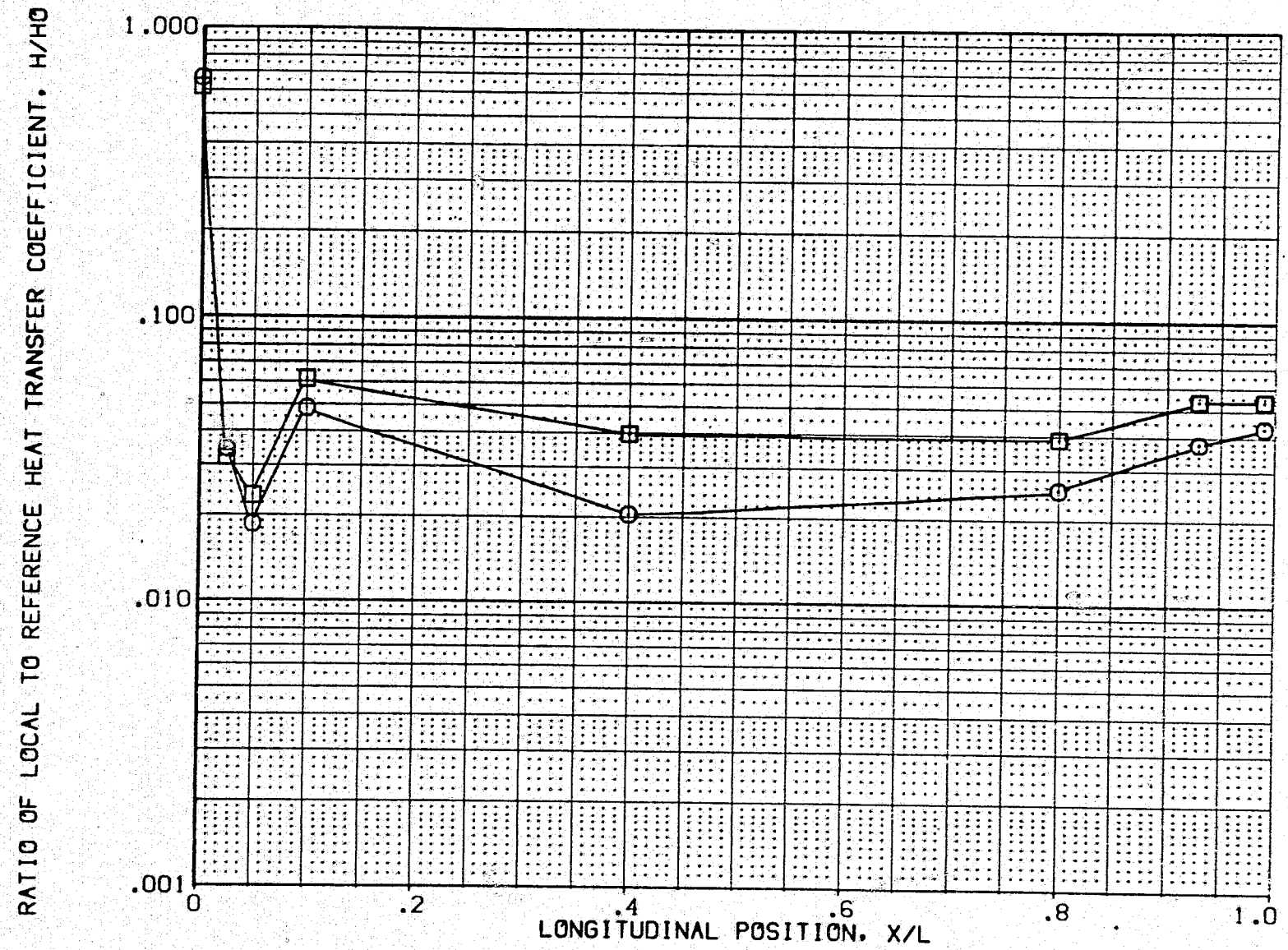


FIG. 35 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 90.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS25)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	1.500
(RENS28)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

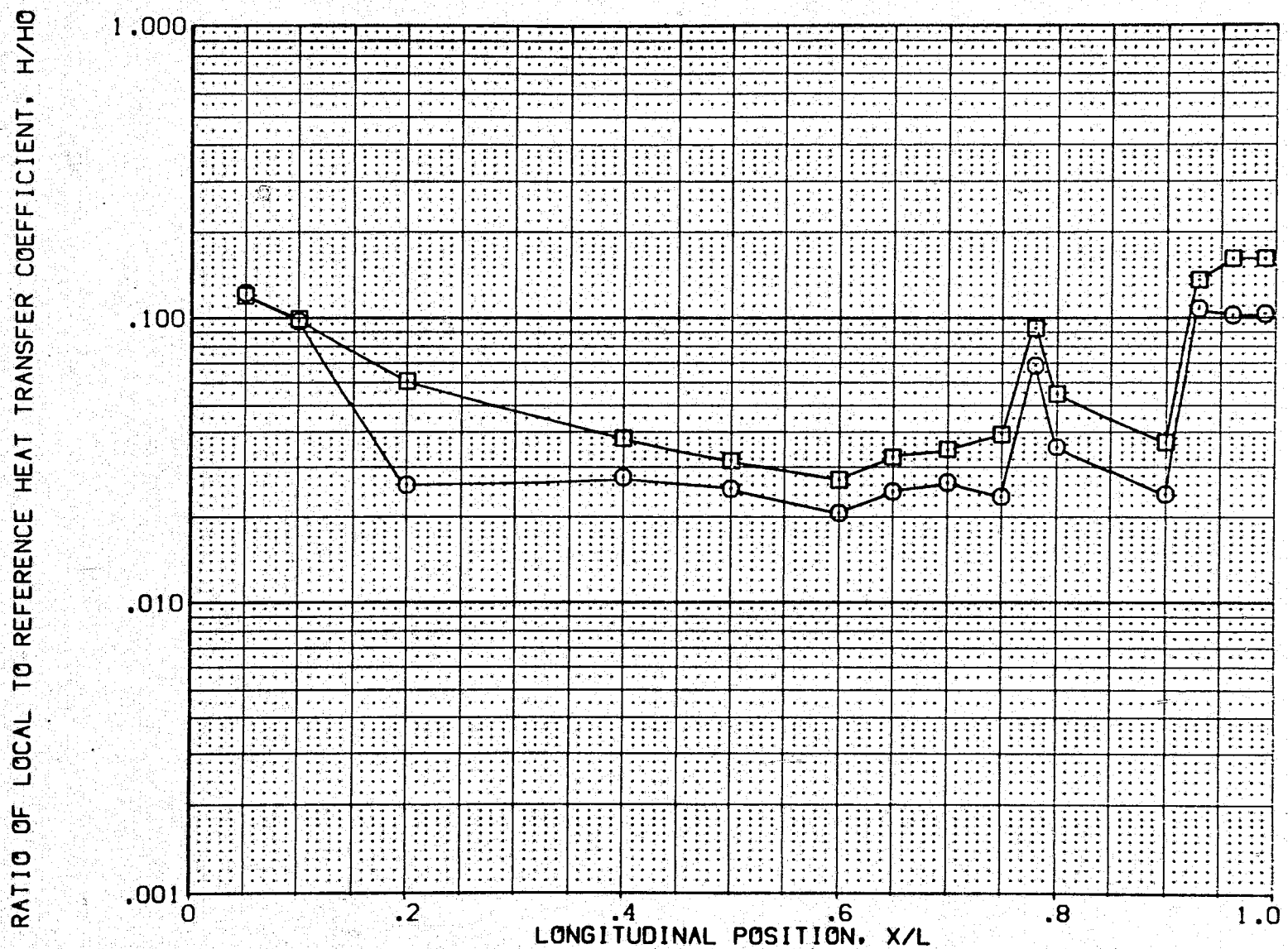


FIG. 35 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS25)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	1.500
(RENS28)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

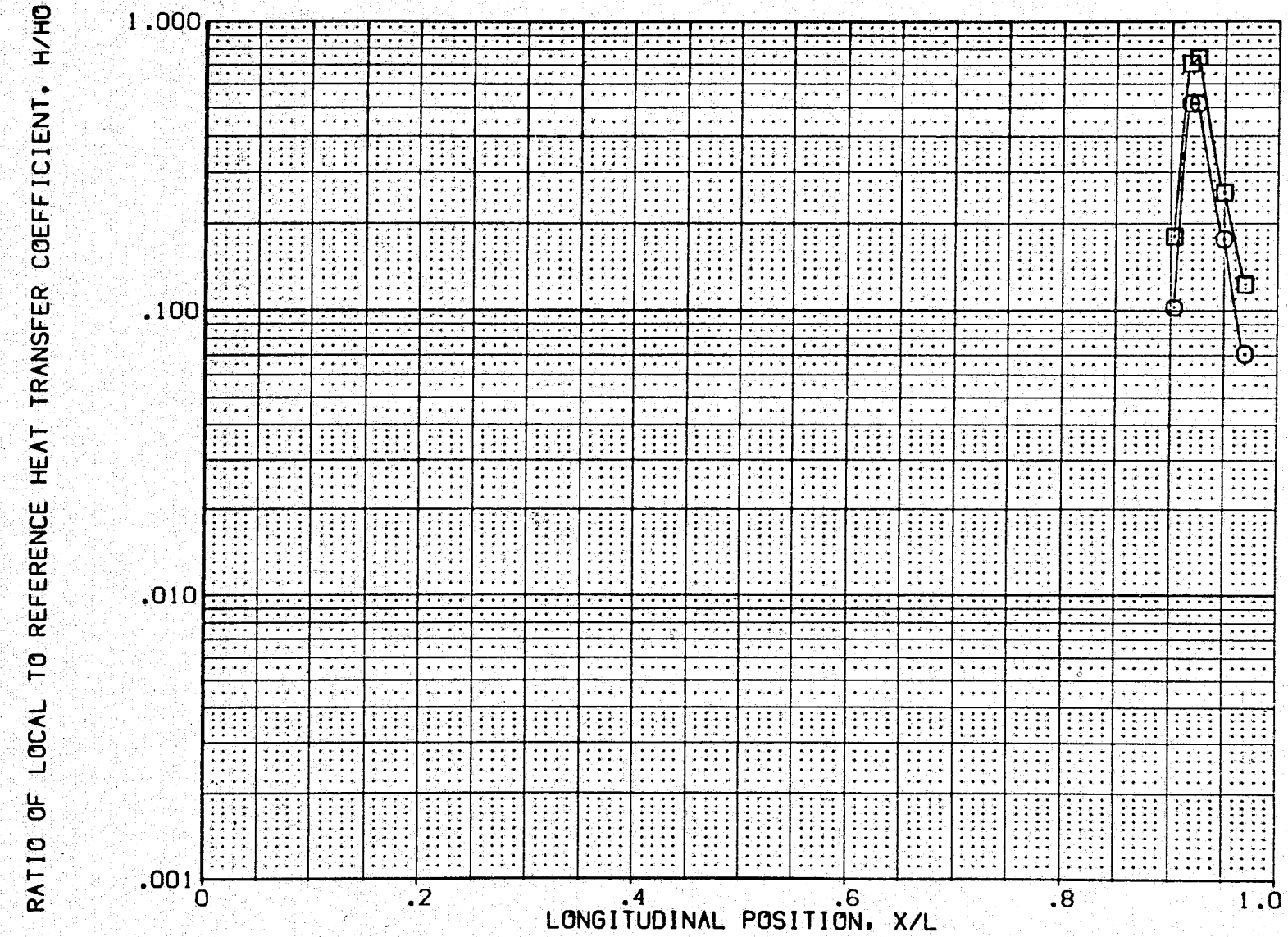


FIG. 35 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HI= .900 PSI = 210.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS25) ○	ARC 3.5-185 IH2G S8	SOLID BOOSTER	20.000	.000	5.300	1.500
(RENS28) □	ARC 3.5-185 IH2G S8	SOLID BOOSTER	20.000	.000	5.300	5.000

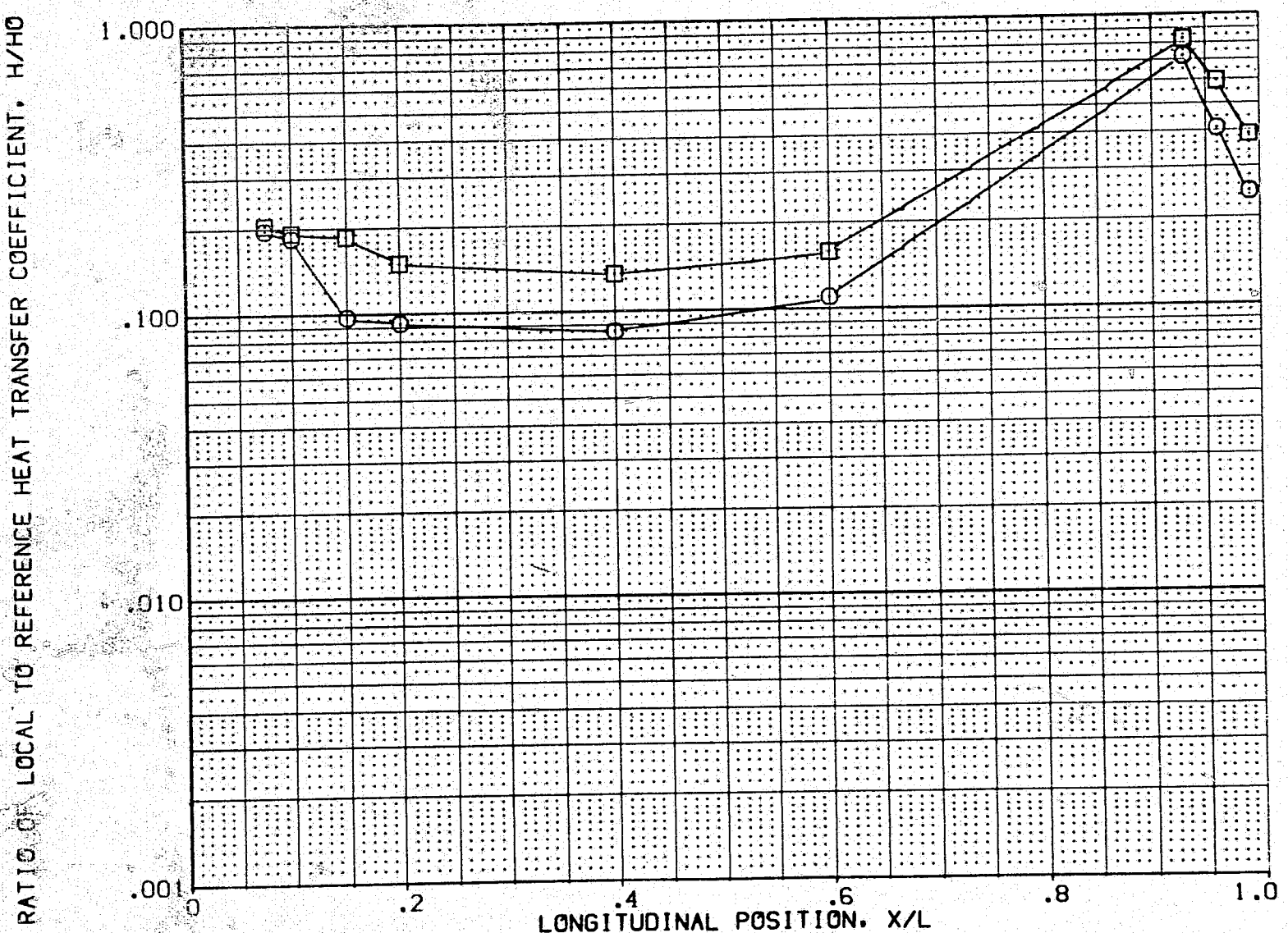


FIG. 35 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 225.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS25)	ARC 3.5-185 1H20 S8	SOLID BOOSTER	20.000	.000	5.300	1.500
(RENS28)	ARC 3.5-185 1H20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

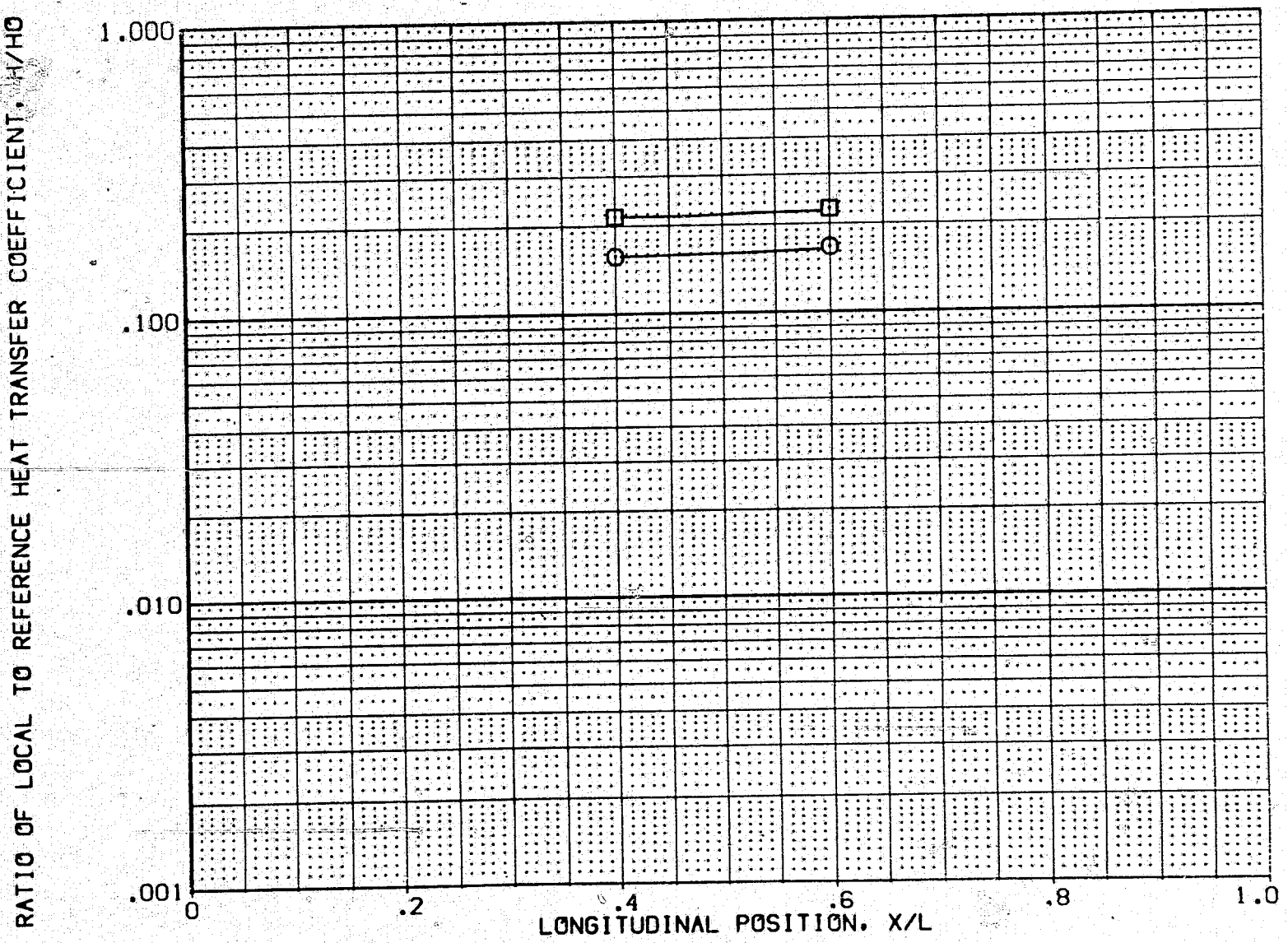


FIG. 35 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 247.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS25) ○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	1.500
(RENS28) □	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

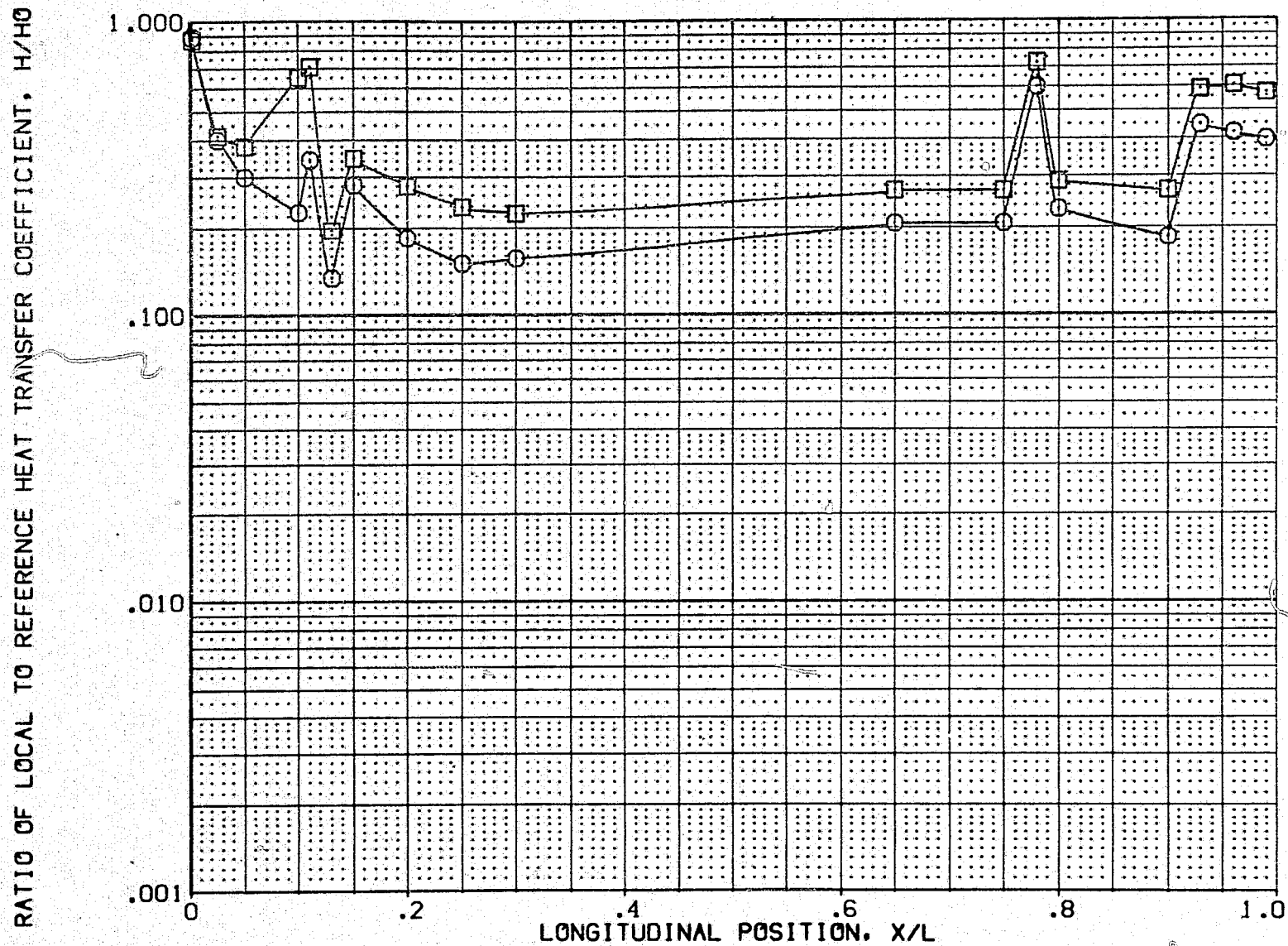


FIG. 35 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 270.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS25)	○	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	1.500
(RENS28)	□	ARC 3.5-185 IH20 S8	SOLID BOOSTER	20.000	.000	5.300	5.000

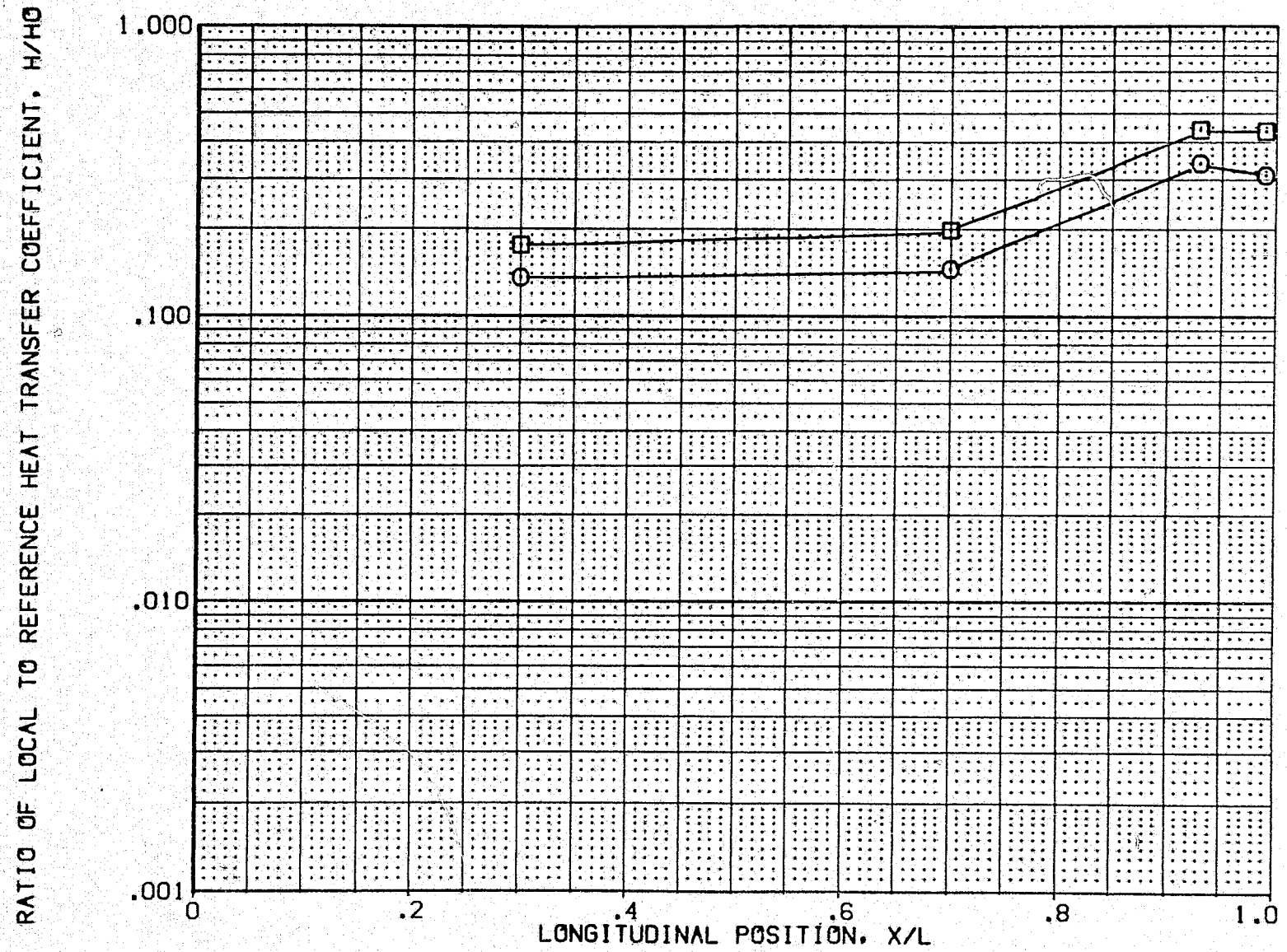


FIG. 35 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 315.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS29)	○	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS30)	□	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	5.000

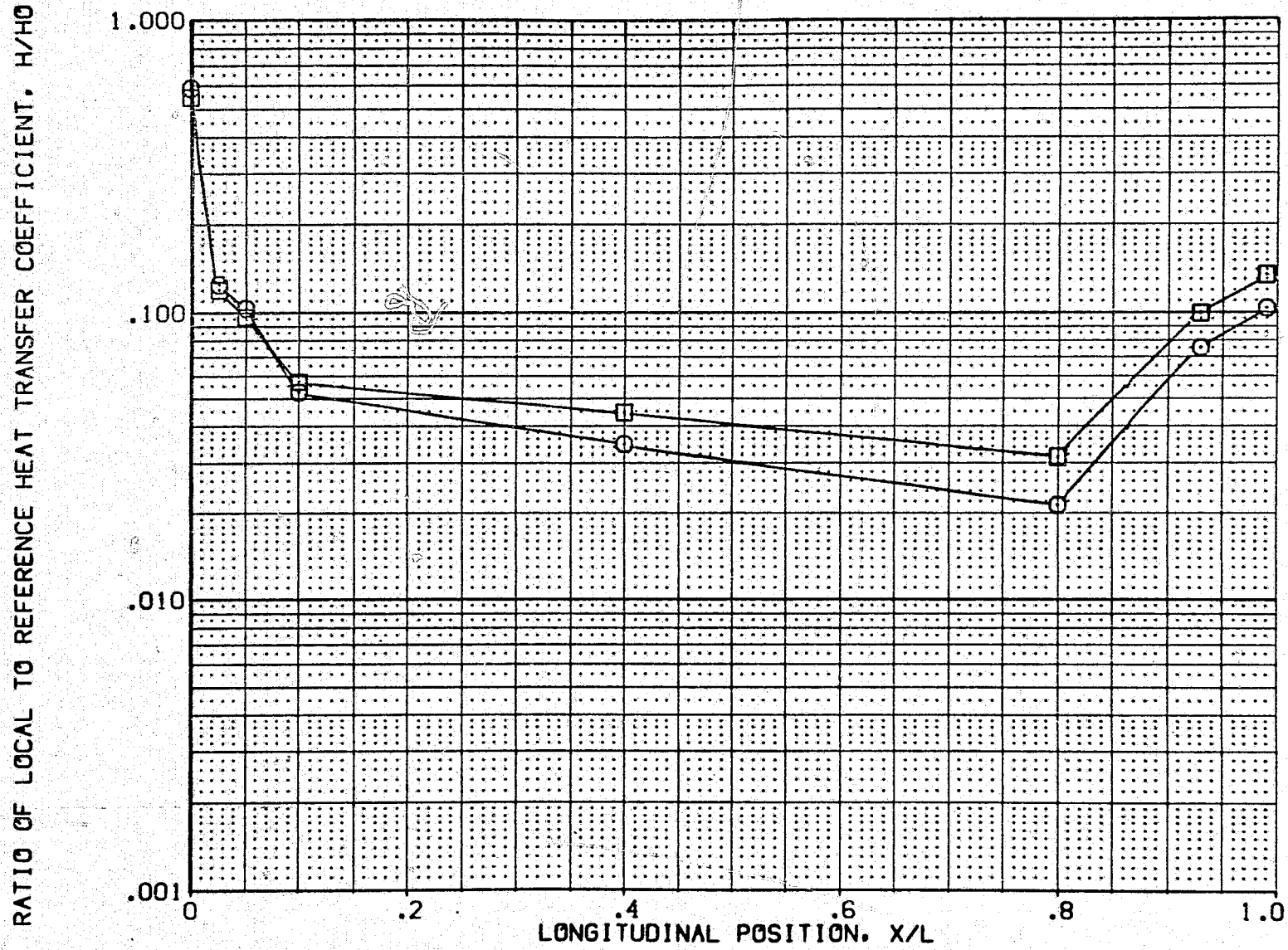


FIG. 36 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 90.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS29)	○	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS30)	□	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	5.000

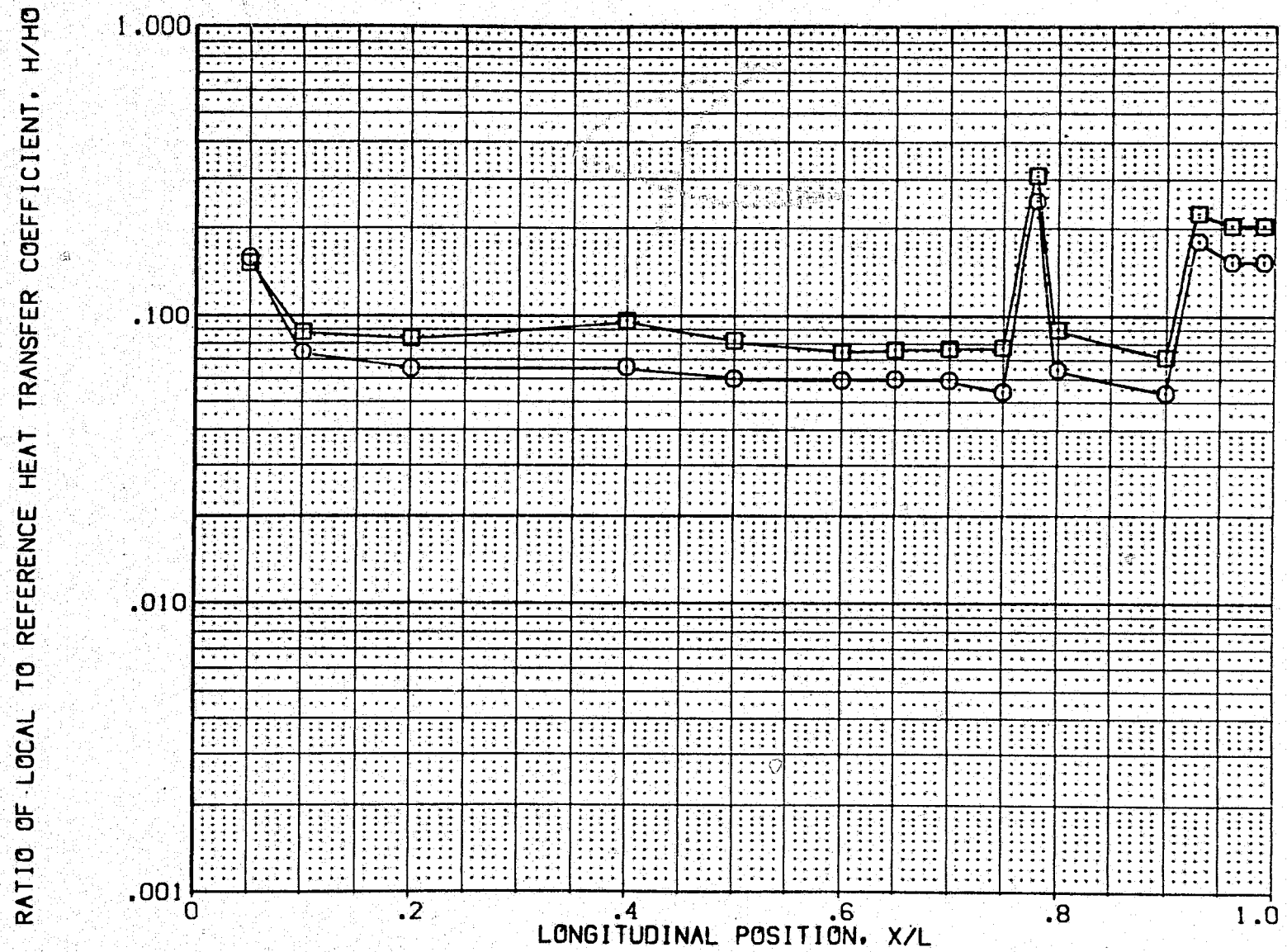


FIG. 36 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 180.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS29)	○	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS30)	□	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	5.000

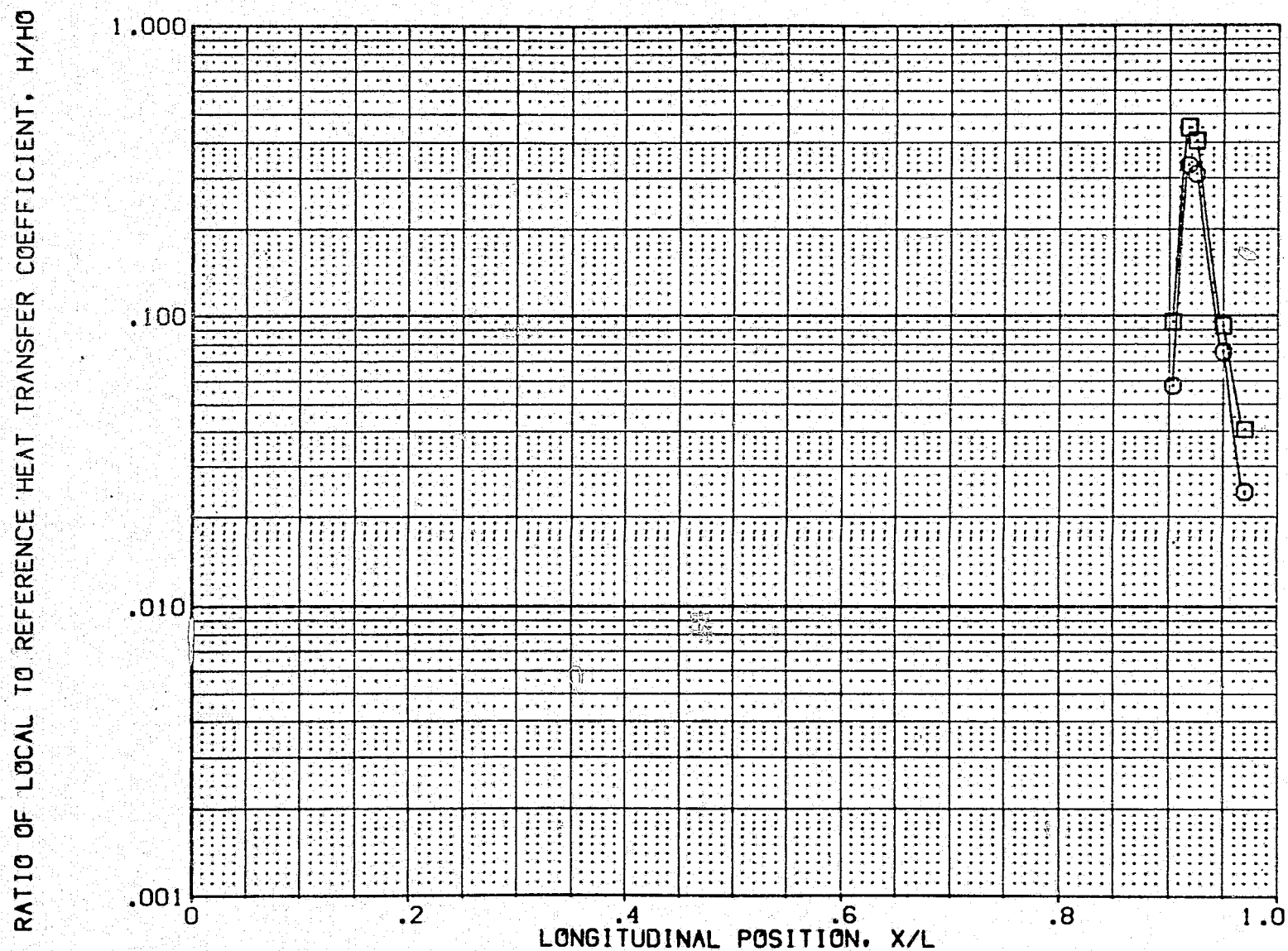


FIG. 36 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 210.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS29)	○	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS30)	□	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	5.000

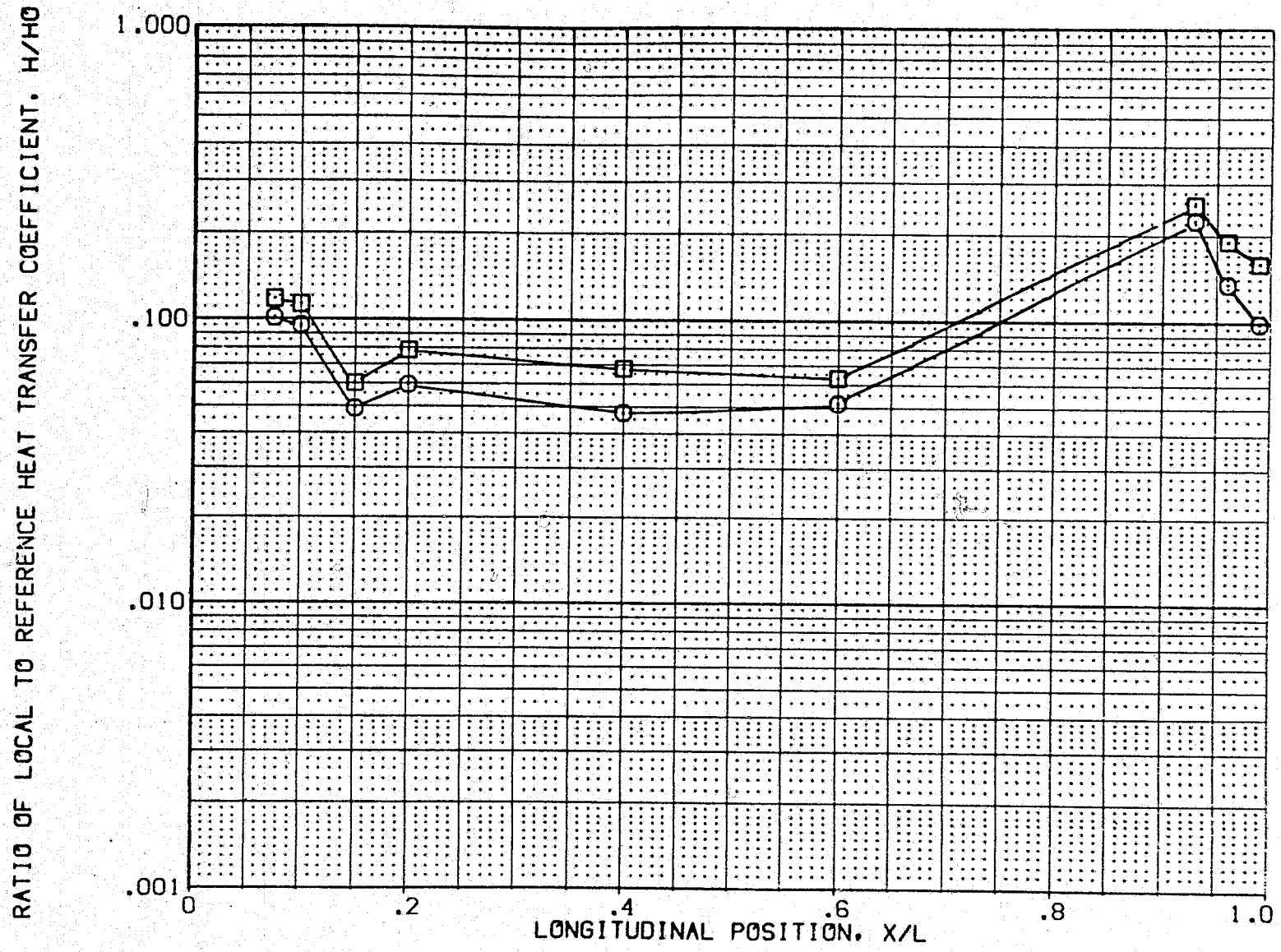


FIG. 36 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 225.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS29)	○	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS30)	□	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	5.000

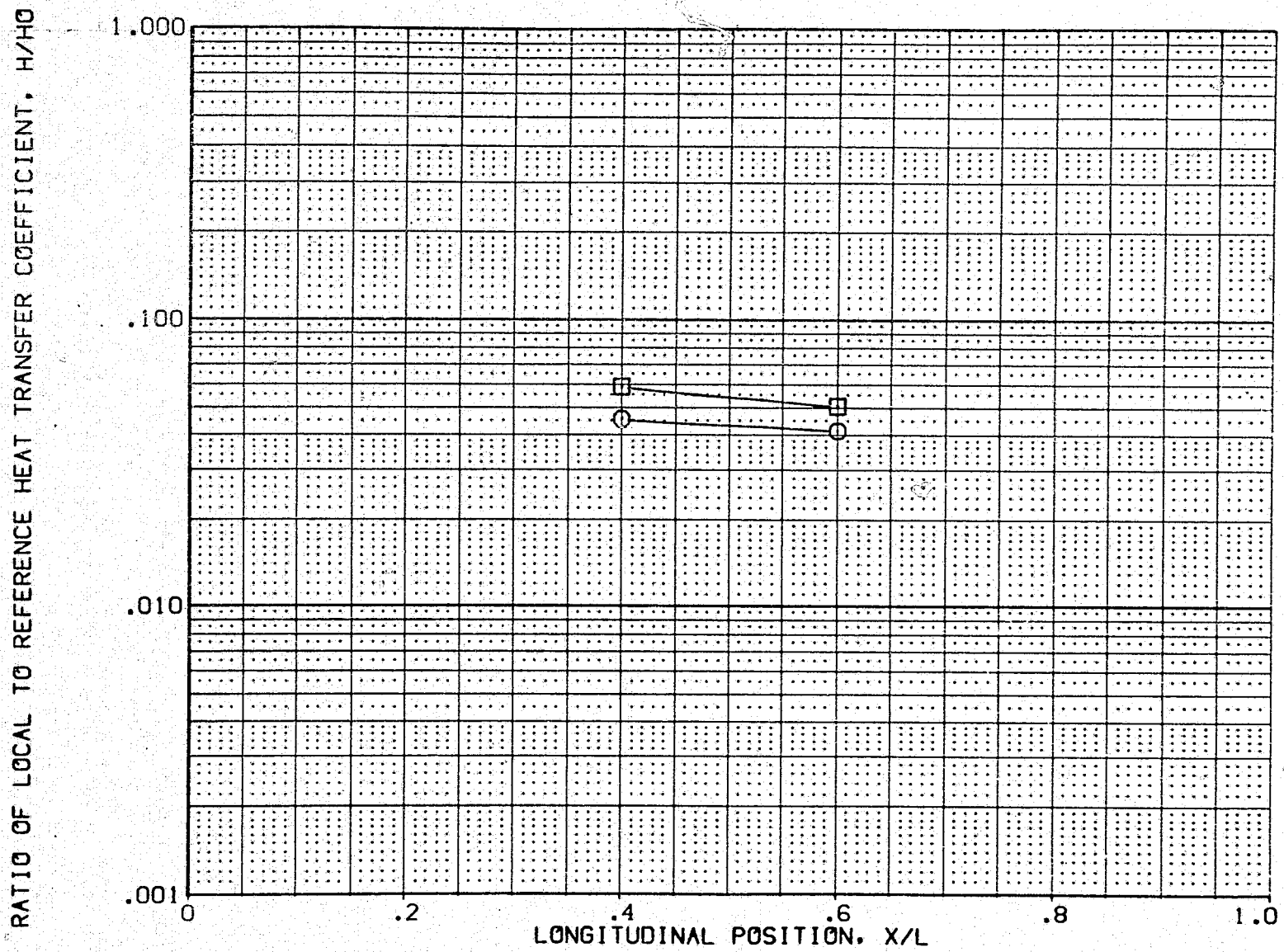


FIG. 36 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 247.500

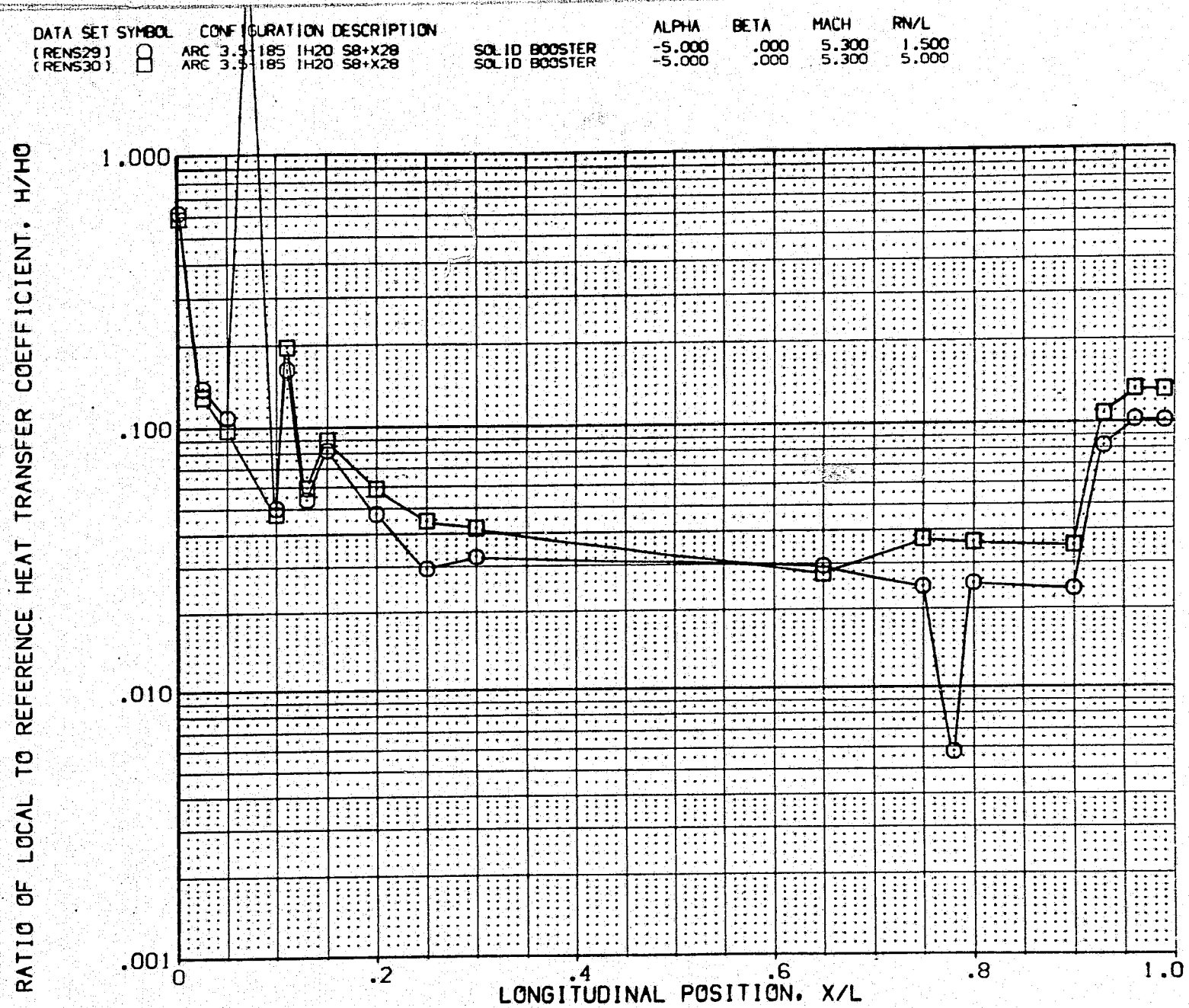


FIG. 36 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 270.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		ALPHA	BETA	MACH	RN/L
(RENS29)	○	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	1.500
(RENS30)	□	ARC 3.5-185 IH20 S8+X28	SOLID BOOSTER	-5.000	.000	5.300	5.000

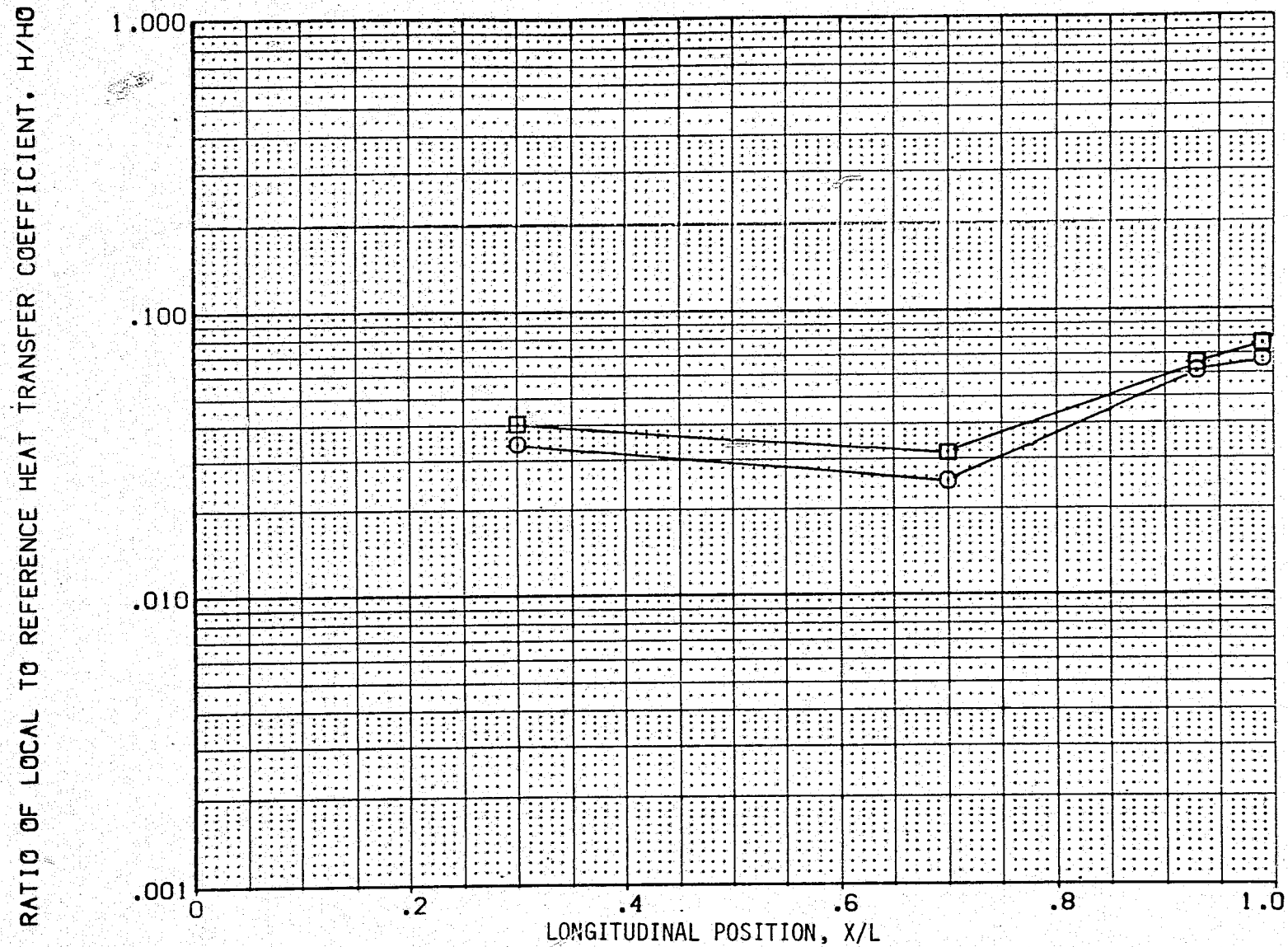


FIG. 36 EFFECT OF REYNOLDS NO. - SRB

MACH = 5.300 HAW/HT= .900 PSI = 315.000

APPENDIX

TABULATED SOURCE DATA

VOLUME I

QDOT DATA

H/HO DATA (SEE VOL. II)

Tabulations of plotted data are available on request from Data Management Sercices

PRECEDING PAGE BLANK NOT FILMED

REN---datasets contain H/HO data

QEN---datasets contain QDOT data

4th Character of Dataset ID	Location of Thermocouple
A	Orbiter, Phi = 0.0 (Bottom C_L)
B	Orbiter, Y = 0.438 (Fuselage Bottom Surface)
C	Orbiter, Y = 0.875 (Fuselage Side)
D	Orbiter, C.C.L. Tangent
E	Orbiter, M.H.B. Tangent
F	Orbiter RCS, Z = 6.125
G	Wing Upper Crease
H	Orbiter, Z = 7.525 (Upper Body)
I	Orbiter Windows
J	Orbiter, Z = 8.379 (Upper Body)
K	Orbiter, Phi = 180. (Top C_L)
L	OMS Bottom Crease
M	Orbiter, Z = 8.295 (OMS Pods)
N	Orbiter, Phi = 130. (OMS Pods)
O	OMS Top
P	OMS Inside
Q	Orbiter Body Flap, Y = 1.75
R	Bottom RCS
S	Solid Booster
T	External Tank
U	Orbiter, Z = 8.75 (OMS Pods)
V	Vertical Tail
W	Wing Bottom Surface
X	Wing Upper Surface
Y	Clusters B and C
Z	Orbiter Body

ARC 3.5-185 IH20 01+T15+S8 ORB PHI=0.0 (QENA01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	22.3386
.005	13.8597
.010	9.0809
.020	4.0761
.030	2.4535
.040	1.9337
.050	.8851
.060	.9071
.070	1.0454
.080	2.8746
.090	4.9680
.100	15.8658
.120	5.9117
.130	2.6978
.140	2.0459
.150	.9669
.160	1.8350
.170	.9253
.180	1.7061
.190	1.8238
.200	3.3040
.225	2.4462
.250	2.7642
.275	2.3185
.300	1.8242
.325	1.5736
.350	1.2995
.375	.0000
.400	2.3565
.425	1.8469
.450	2.1455
.475	1.7614
.500	1.8237
.525	1.5721
.550	1.8866
.575	1.5218
.600	1.8030
.625	1.4234

ARC 3.5-185 IH20 01+T15+S8 ORB PHI=0.0 (QENA01)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	1.5515
.675	1.2262
.700	1.4067
.725	.9728
.750	3.9583
.775	4.1670
.800	4.2369
.825	4.0351
.850	3.3229
.875	1.1826
.900	.9658
.925	.6263
.950	.3996
.975	.2188
1.000	.0964
1.013	.0000
1.025	.0535
1.038	.0000
1.050	.0800

ARC 3.5-185 IH20 01+T15+58 ORB Y=0.438 (QENB01) (12 SEP 75)

REFERENCE.DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	1.5504
.200	1.5840
.300	2.1398

ARC 3.5-185 IH20 01+T15+S8 ORB Y=0.875 (QENC01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	1.2136
.300	2.1646
.400	2.1052
.500	1.8805
.600	1.7524
.700	1.6439
.800	4.0251
.900	.5479

DATE. 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15+S8 ORB C.C.L.TANGENT (QEN001) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.		
LREF =	1290.3000 IN.	YMRP =	.0000 IN.		
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	1.5995
.100	2.8947
.150	4.7173
.200	1.8451

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ARC 3.5-185 IH20 01+T15+S8 ORB M.H.B.TANGENT (QENE01) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.		
LREF =	1290.3000 IN.	YMRP =	.0000 IN.		
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	2.6730
.100	1.4427
.150	2.9263

ARC 3.5-185 IH20 01+T15+S8 ORB Z=6.125 (QENF01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	2.0488
.300	.3141
.800	.6527
.900	1.6203
.975	1.3460

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ARC 3.5-185 IH20 01+T15+S8 WING UPPER CREASE (QENG01) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.		
LREF =	1290.3000 IN.	YMRP =	.0000 IN.		
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	1.6877
.500	.6559
.600	1.2757
.700	.8304
.900	1.3412

ARC 3.5-185 IH20 01+T15+58 ORB Z=7.525 (QENH01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	1.1947
.400	1.3406
.500	.9256
.600	1.5517
.700	1.2999
.800	1.5977

ARC 3.5-185 IH20 01+T15+S9 ORB WINDOWS (QEN101) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	12.7064		
.164	12.7412		
.168	12.0251		
.170		22.8431	
.178			18.2190
.182	8.2803	4.1694	14.9667
.185			11.0034
.191			8.9654
.200		6.2819	

ARC 3.5-185 IH20 01+T15+S8 ORB Z=8.379 (QENJ01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE CDOT

Z 8.3790

X/L	
.300	.8512
.400	.4460
.500	.0986
.600	.6762
.700	.9878

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ARC 3.5-185 IH20 01+T15+S8 ORB PHI=180 (QENK01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 P0 = 123.25 T0 = 1319.6 H0 = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	13.2480
.025	7.3149
.050	4.8121
.075	3.4023
.100	2.9828
.125	2.5240
.150	5.0138
.160	20.4066
.170	21.7299
.180	17.4613
.200	2.8698
.250	.4488
.300	.1798
.400	.3217
.500	.9206
.600	1.6326
.700	1.6266
.800	1.8191

ARC 3.5-185 IH20 01+T15+S8 OMS BOTTOM CREASE (QENL01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	1.7563
.900	2.4314
.975	1.6762

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OF POOR QUALITY

ARC 3.5-185 IH20 01+T15+58 ORB Z=8.295 (QENH01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	6.3457
.805	6.8431
.829	4.8289
.862	3.0073
.963	1.9615
1.000	2.2079
1.014	1.8642

ARC 3.5-185 IH20 01+T15+S8 ORB PHI=130. (QENN01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.56

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	6.8866
.829	5.8754
.862	2.8067
.963	2.0295

ARC 3.5-185 IH20 01+T15+S8 OMS TOP (QEN001) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.		
LREF =	1290.3000 IN.	YMRP =	.0000 IN.		
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	6.9428
.829	5.2668
.862	2.2054
.963	1.5054

ARC 3.5-185 IH20 01+T15+S8 OMS INSIDE (QENP01) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.		
LREF =	1290.3000 IN.	YMRP =	.0000 IN.		
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.56

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	1.9097
.963	2.4192

ARC 3.5-185 IH20 01+T15+S8 ORB Y=1.75 (QENQ01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.4419
1.050	.5422

ARC 3.5-185 IH20 01+T15+S8 BOTTOM RCS (QENR01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.2755
1.014	.3912

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ARC 3.5-185 IH20 01+T15+S8 SOLID BOOSTER (QENS01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.56

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI	90.0000	135.0000	180.0000	210.0000	215.0000	225.0000	240.0000	247.5000	260.0000	270.0000	315.0000
X/L											
.000	17.9544										
.002									21.6687		
.025	2.8103								5.4484		
.050	1.9437		5.0130						3.2784		
.075						3.3274			1.4819		
.100	1.4799		3.7226			2.3835			6.6577		
.110									16.4777		
.115								15.8083			
.130									2.1758		
.150						1.9003			2.3650		
.200			1.9887			2.7347			1.3800		
.250									.8117		
.300						1.3021		.8438	.7458	.1479	
.400	.8642		.9945			.9656		1.4687	1.1460		
.500			2.1480			1.3524		1.8876	1.9176	.7196	
.600			1.2386			1.6634		1.6386	1.6108		
.650			1.4053					1.6142	1.4732		
.700	.2226	.5840	1.4676			1.1496		1.4234	1.3884	.4997	
.750			1.6783					2.5024	2.1851		
.780	.5259		6.0080			.0000			11.3243	2.0398	
.800	.1897		5.4574			5.6015			.7712	.7555	
.850			2.0127			2.5947			.4141		
.900	.0336	1.1153	1.8929			.4908			.2012	.4495	
.904				1.6117							
.918				6.9912							
.925				5.2961	2.8773						
.930	.4099	2.8340	5.1910			6.6704	2.0367		.3321	1.1000	
.940					1.0172						
.950				1.6023							
.960			3.4502		.8258	2.3463	1.8076		.7109		
.970				.5325							
.990	.8922	2.2478	2.3173			1.7756	.9600		1.2472	1.1185	

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ARC 3.5-185 IH20 01+T15+S8 EXTERNAL TANK (QENT01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												20.8972			
.005												16.2303			
.010												18.2757			
.040	3.5313											7.3180			
.080	1.9119											5.5054	3.9860		
.150	.4102											1.8592		2.2056	1.9445
.200				.6095								.8611			
.250				.4664								.3920			
.275				.3362	.5464										
.300			.4584	3.5814	.4825							.2576		.0000	
.325				11.6133	1.8443		.6644								
.350			3.3403	4.4459	6.3437		2.0316					1.2732			
.375							1.3992					2.0474			
.400	.8348	1.6883	.4980	1.8948	1.6379		1.0301		2.0626		2.3593	2.4198			.9314
.425									3.6970	3.5665		5.9285			
.450				1.0491	.9938		1.6475		3.9925			10.6316			
.475									3.5531			1.6931			
.500		.3913	.1330	.8691	.6294		4.5997		2.6165		2.2442	2.7988		3.3232	
.525												2.3610			
.550				.7236	1.7515		2.5371		1.3800			2.0697			
.575												2.2193			
.600	1.0074	.2536	.2103	1.3144	1.7131		2.0071		1.1434			2.3552			1.0822
.625												2.0625			
.650			.2868	1.8223	.9746		1.7313		1.2250			1.9654			
.675												2.2892			
.700		.7037	.2329	1.8495	2.3815		1.5307		1.2785		2.2234	2.1480		1.9075	
.750			.3047	1.7280	2.6399		1.2930		.9654			1.8312			
.800	.8960	.5984	.3784	1.5020	2.2103		1.4254		.5961			1.7362			1.1291
.825						2.8368									
.850				1.5696	2.0642	1.7126	2.2431		1.2211			1.4171			
.875						2.1086									
.900		.9427	.8978	2.0393	1.8429	2.0741	1.8349		1.6301		2.1638	2.9036		2.3280	
.925						4.8944									5.5985
.935								7.0332							
.937												5.0347			
.960						2.4307									
.975												.7053			

ARC 3.5-185 IH20 01+T15+S8 EXTERNAL TANK (QENT01)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		2.7418	
.400	2.3040		2.3688
.500	3.1542		
.600			2.0868
.700	2.0379		
.800			1.4706

ARC 3.5-185 IH20 01+T15+S8 ORB Z=8.75 (QENU01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	1.8312
1.014	1.6611

ARC 3.5-185 1H20 01+T15 S8 VERTICAL TAIL (QENV01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		11.4757	12.6173	.0000	20.3982
.100	2.5096	2.4456	3.4599	4.5348	7.2529
.300	4.8847	2.5269	.8736	2.1346	
.500		4.1370	2.2636	1.3572	.0000
.700	.9105	1.0862	1.3395	.3688	
.900		.8465	1.6011	.0000	

ARC 3.5-185 IH20 01+T15+S8 WING BOTTOM SURF. (QEN401) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						11.8640		2.9069			3.4097	1.0425
.005		2.0042	1.8828		8.5959		9.1024			4.4890		
.025	2.9031			4.9547	5.7936		7.8861					
.050										3.7481		
.100				1.5663		1.8655	2.2285	2.8954		3.5596		
.153	2.6566											
.177					.9559							
.200				.7504		1.1648						
.299	1.5950											
.300					.5843	.7726		1.3741	1.6181	1.8437		
.302				.8430								
.303							1.1571					
.428						.7977						
.444	1.6375											
.487					1.0349							
.500							.9445	1.3692		1.2485		
.559				2.9268								
.590	1.3132											
.600					2.7264	2.4433			.6483			
.700				4.9889	3.2629	1.9361	.4432			.0000		
.736	6.2772											
.800						1.1188	.7622					
.850						1.4831	.0000					
.900	.2264			.7883	1.5846	1.8893	1.0729			.3044		

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ARC 3.5-185 IH20 01+T15+S8 WING UPPER SURF. (QENX01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	5.1051	5.8822	8.1087
.200	1.2408	1.3802	2.0469
.600	.0815	.3064	.4418
.800		.1747	.3783
.900		.1803	.3816
.950	.1528	.1038	.0000

ARC 3.5-185 1H20 01+T15+S8 CLUSTERS B AND C (QENY01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.86

SECTION (1)WING DEPENDENT VARIABLE CDOT

2Y/B	.6000	.8500
S		
.000	11.8640	2.9069
.050	11.1348	5.3282
.100	7.8284	4.1492
.150	5.8665	3.2290
.200	4.9330	2.5321
.250	3.6114	1.7041
.300	2.5353	1.4232

ARC 3.5-185 IH20 01+T15+S8 ORBITER BODY (QENZ01) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4871 PO = 123.25 TO = 1319.6 HO = 322.55

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	.8851	15.8658	.9669	3.3040	1.8242				
.238					2.1398				
.254				1.5840					
.278			2.0214						
.281		11.6667							
.474			2.9628						
.477					2.1646				
.499	1.5504								
.510				1.2136					
.555		3.5506							
.672				1.8451					
.696	1.5995								
.713					2.2277				
.728			4.7173						
.746		2.8947							
.780				2.9613					
.882					1.4635				
.890				3.3237					
1.002			2.6825						
1.003					1.2102				
1.087								1.1248	
1.155			2.9263						
1.182		1.4427							
1.201				2.6147					
1.230	2.6730								
1.326							1.3412		
1.364					.7138				
1.444								1.3460	
1.458							1.6203		
1.459					.4968				
1.554	2.7600				.3141				
1.606							1.7087		
1.608				.5892					
1.649					.2053				
1.750						1.2757			
1.896							2.4314		
1.933								1.6762	
1.975						1.6092			

ARC 3.5-185 IH20 01+T15+S8 ORBITER BODY (QENZ01)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				.7801					
2.316					1.1947				
2.360	4.7088								
2.497						1.5517			
2.593						1.4252			
2.630		3.5457							
2.640						1.3645			
2.735							1.7518		
2.766				6.2819					
2.883					.8512				
3.062						.6762			
3.168	4.8121								
3.308			5.0138						
3.351		2.9828							
3.372							1.3132		
3.540				2.8698					
3.649					.1798				
3.844						1.6326			

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ARC 3.5-185 IH20 01+T15+S8 ORB PHI=0.0 (QENA02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	30.5778
.005	20.1765
.010	13.7296
.020	6.3119
.030	4.7771
.040	.0000
.050	2.4190
.060	.0000
.070	1.1314
.080	1.4547
.090	3.8702
.100	9.0634
.120	20.6575
.130	12.5484
.140	5.9603
.150	3.4296
.160	2.1134
.170	2.0742
.180	2.6210
.190	3.4746
.200	3.1940
.225	5.3808
.250	5.2545
.275	6.8825
.300	5.0201
.325	4.6924
.350	3.9529
.375	4.5541
.400	3.8423
.425	4.2029
.450	5.1329
.475	4.9719
.500	4.4262
.525	4.3196
.550	3.6605
.575	3.5643
.600	3.7385
.625	3.8395

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15+S8 ORB PHI=0.0 (QENA02)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	3.5943
.675	3.6591
.700	4.0148
.725	4.0505
.750	4.0279
.775	5.0633
.800	6.6822
.825	10.5707
.850	8.4511
.875	4.2949
.900	2.4086
.925	1.4633
.950	.7733
.975	.5227
1.000	.2781
1.013	.0000
1.025	.1405
1.038	.0000
1.050	.2055

ARC 3.5-185 IH20 01+T15+S8 ORB Y=0.438 (QENB02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	2.9488
.200	3.1128
.300	4.7496

ARC 3.5-185 IH20 01+T15+SB ORB Y=0.875 (QENC02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	3.6864
.300	5.3221
.400	3.8120
.500	3.4112
.600	3.2078
.700	3.5457
.800	7.2644
.900	2.0729

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ARC 3.5-185 IH20 01+T15+S8 ORB C.C.L.TANGENT (QEND02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	2.6930
.100	2.4171
.150	7.9390
.200	4.8288

ARC 3.5-185 IH20 01+T15+S8 ORB M.H.B.TANGENT (QENE02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	3.8928
.100	2.0518
.150	4.3351

ARC 3.5-185 IH20 01+T15+S8 ORB Z=6.125 (QENF02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.075	8.6569
.300	2.7013
.800	1.5430
.900	2.5233
.975	2.1511

ARC 3.5-185 IH20 01+T15+S8 WING UPPER CREASE (QEN002) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	3.3794
.500	2.0335
.600	3.5744
.700	2.5405
.900	3.5170

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ARC 3.5-185 IH20 01+T15+S8 ORB Z=7.525 (QENH02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 P0 = 403.71 T0 = 1306.4 H0 = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	2.1229
.400	2.4034
.500	2.6525
.600	2.0057
.700	2.3558
.800	3.4054

ARC 3.5-185 IH20 01+T15+S8 ORB WINDOWS (QENI02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	33.0003		
.164	25.8909		
.168	23.0191		
.170		36.9298	
.178			40.2641
.182	16.5320	22.6169	29.4734
.185			23.4208
.191			18.9189
.200		12.3207	

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ARC 3.5-185 1H20 01+T15+S8 ORB Z=8.379 (QENJ02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	2.3621
.400	2.6305
.500	2.7367
.600	2.3779
.700	2.9058

ARC 3.5-185 IH20 01+T15+S8 ORB PHI=180 (QENK02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	20.7573
.025	12.3104
.050	11.1478
.075	14.8497
.100	13.6364
.125	11.5116
.150	17.1033
.160	33.1339
.170	37.3002
.180	28.1888
.200	6.3215
.250	.9071
.300	.5537
.400	2.7934
.500	3.6149
.600	3.6198
.700	3.5971
.800	5.7160

ARC 3.5-185 IH20 01+T15+S8 OMS BOTTOM CREASE (QENL02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.10

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	3.4756
.900	5.5869
.975	4.1309

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15+S8 OR8 Z=8.295 (QENM02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	10.0441
.805	7.9704
.829	8.1086
.862	6.5547
.963	4.8125
1.000	4.9752
1.014	4.1000

ARC 3.5-185 IH20 01+T15+58 ORB PHI=130. (QENN02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	14.6913
.829	13.1177
.862	6.9548
.963	4.9697

ARC 3.5-185 IH20 01+T15+S8 OMS TOP (QEN002) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	.0012
.829	12.6977
.862	5.0472
.963	.1478

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ARC 3.5-185 IH20 01+T15+S8 OMS INSIDE (QENP02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.31 TO = 1306.4 HO = 319.18

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	5.7676
.963	5.7061

ARC 3.5-185 IH20 01+T15+S8 ORB Y=1.75 (QENQ02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	1.4543
1.050	1.1701

ARC 3.5-185 IH20 01+T15+S8 BOTTOM RCS (QENR02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.5810
1.014	.7614

ARC 3.5-185 IH20 01+T15+S8 SOLID BOOSTER (QENS02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)SRB DEPENDENT VARIABLE QDQT

PSI 90.0000135.0000180.0000210.0000215.0000225.0000240.0000247.5000260.0000270.0000315.0000

X/L											
.000	27.4749										
.002									33.8618		
.025	4.3684								9.4989		
.050	3.0153		8.2274						5.7327		
.075					6.1425				3.5699		
.100	4.1762		6.5307		5.7259				14.2277		
.110									29.2990		
.115								26.3932			
.130									6.0116		
.150					3.9663				6.1870		
.200			3.8001		4.7998				3.9681		
.250									3.0922		
.300					3.0549		3.0874		2.7687	.2011	
.400	2.0100		3.2286		3.0803		4.6264		2.7301		
.500			6.5853		6.3656		6.8419		4.9784	1.5621	
.600			4.7355		6.7867		6.4582		4.8484		
.650			4.8265				6.4544		4.7441		
.700	.7820	2.1146	4.7102		4.9742		5.8075		4.5134	1.5992	
.750			4.0609				7.5388		7.2447		
.780	1.5696		13.8198		.0000				22.9858	1.7598	
.860	.3575		10.3621		7.4819				1.8306	1.4470	
.850			5.6424		6.0903				.4804		
.900	.0000	2.2455	4.5972		1.2194				.4762	.7459	
.904				4.9975							
.918				13.2950							
.925				10.6350	5.8926						
.930	1.0571	6.5519	12.7329			10.9801	4.0734		.8797	2.2857	
.940					2.3858						
.950				2.9173							
.960			6.5628		1.8732	3.9689	3.0068		1.8920		
.970				1.4004							
.990	2.3374	5.2239	5.7159			3.0446	1.5441		2.2731	3.3744	

ARC 3.5-185 IH20 01+T15+S8 EXTERNAL TANK (QENT02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	200.0000
X/L															
.000												33.8656			
.005												33.6804			
.010												34.5575			
.040	5.8537											23.3370			
.080	3.2751											17.9317	13.3256		
.150	.8359											8.5153		7.1418	6.2449
.200				2.6657								4.7085			
.250				1.9033								3.4251			
.275				1.8895	2.2001										
.300			2.1335	7.0241	2.1499							3.2950		.0000	
.325				20.0084	4.6953		2.3689								
.350			8.6205	9.8410	12.8558		4.2773					3.1929			
.375							2.9854					3.0811			
.400	2.1275	2.3500	1.3086	3.7553	4.3600		1.9971		3.9280		4.4916	5.5814			2.7984
.425									5.0820	6.3807		9.9215			
.450				2.5818	3.9435		5.2026		7.1502			25.4758			
.475									7.5212			5.9074			
.500		.9807	.4288	1.9392	3.4857		8.9407		5.7699		5.0952	12.0801		8.7650	
.525												8.0592			
.550				1.9139	3.8667		7.5327		3.6194			5.6217			
.575												4.9953			
.600	3.2535	1.0465	.2584	2.1015	4.7499		5.4311		2.4381			5.8321			3.0953
.625												6.0658			
.650			.8901	3.2604	4.9583		4.2214		2.5840			5.5878			
.675												5.7584			
.700		1.6276	.6994	4.3623	5.5067		4.8826		2.6949		4.6616	4.9284		4.2046	
.750			1.0482	4.6638	5.8095		4.3410		2.3351			5.0270			
.800	1.9379	1.2730	1.0945	3.9600	5.0268		4.4376		1.5335			4.1760			2.8159
.825						6.0186									
.850				4.0488	4.1321	2.7248	5.1584		2.2980			4.0499			
.875						4.3276									
.900		1.6930	1.8126	3.8982	4.2944	4.8490	5.0303		3.8719		5.9329	7.1578		5.9718	
.925						11.4965									10.8135
.935								13.7348							
.937												14.9016			
.960						5.6015									
.975												1.7957			

ARC 3.5-185 IH20 01+T15+S8 EXTERNAL TANK (QENT02)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		4.2001	
.400	5.0761		9.0328
.500	7.4955		
.600			3.9545
.700	4.8924		
.800			2.6531

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ARC 3.5-185 IH20 01+T15+S8 ORB Z=8.75 (QENU02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	4.3322
1.014	3.9290

ARC 3.5-185 1H20 01+T15+S8 VERTICAL TAIL (QENV02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		19.7877	18.5433	.0000	31.0649
.100	5.9917	4.9381	6.1619	8.5367	9.6376
.300	11.7862	6.6990	2.8597	4.0531	
.500		10.3378	5.5470	2.7069	.0000
.700	1.9974	2.5551	2.6740	.6012	
.900		2.6858	3.6757	.0000	

ARC 3.5-185 IH20 01+T15+S8 WING BOTTOM SURF. (QEN402) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						27.1578		4.7801			6.0960	3.2326
.005		4.4481	4.6371		20.4252		17.2503			8.4018		
.025	4.6504			10.1296	13.1940		14.7940					
.050										6.6191		
.100				3.8734		3.5143	3.9145	5.8753		6.3410		
.153	6.3976											
.177					2.3302							
.200				3.6977		2.7917						
.299	3.2422											
.300					3.7393	3.5845		5.6839	3.9373	4.4514		
.302				3.9994								
.303							4.6550					
.428						4.8267						
.444	3.0026											
.487					5.9215							
.500							5.4281	6.7237		4.8839		
.559				4.4854								
.590	2.4884											
.600					4.8062	4.5389			2.8300			
.700				7.5998	5.1236	3.2979	2.0497			2.1038		
.736	10.6001											
.800						2.7614	2.6304					
.850						3.4060	2.7374					
.900	.7096			1.7209	3.6007	2.9411	1.9356			1.7210		

ARC 3 5-185 IH20 01+T15+S8 WING UPPER SURF. (QENX02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	16.1596	18.2682	26.4832
.200	4.6188	5.9689	9.3009
.600	.3178	1.2353	2.6240
.800		.7284	2.2417
.900		1.1657	2.5698
.950	1.0751	.9428	.0000

ARC 3.5-185 IH20 01+T15+58 CLUSTERS B AND C (QENY02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	27.1578	4.7801
.050	12.3681	10.8154
.100	15.5712	8.5163
.150	11.8688	6.4189
.200	9.4042	5.1304
.250	7.4894	3.5450
.300	5.9239	2.9731

ARC 3.5-185 IH20 01+T15+S8 ORBITER BODY (QENZ02) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9513 PO = 403.71 TO = 1306.4 HO = 319.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	2.4190	9.0634	3.4296	3.1940	5.0201				
.238					4.7496				
.254				3.1128					
.278			5.5839						
.281		6.5001							
.474			5.4985						
.477					5.3221				
.499	2.9488								
.510				3.6864					
.555		3.7597							
.672				4.8288					
.696	2.6930								
.713					5.8462				
.728			7.9390						
.746		2.4171							
.780				6.1737					
.882					.1683				
.890				6.4129					
1.002			4.1810						
1.003					4.0314				
1.087								2.1143	
1.155			4.3351						
1.182		2.0518							
1.201				5.3273					
1.230	3.8928								
1.326							3.5170		
1.364					1.9741				
1.444								2.1511	
1.458							2.5233		
1.459					2.5097				
1.554	4.6512				2.7013				
1.606							2.4015		
1.608				6.3524					
1.649					2.4737				
1.750						3.5744			
1.896							5.5869		
1.933								4.1309	
1.975						2.8318			

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DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15+S8 ORBITER BODY (QENZ02)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				7.7061					
2.316					2.1229				
2.360	13.4413								
2.497						2.0057			
2.593						2.7905			
2.630		8.7697							
2.640						3.1160			
2.735							3.6040		
2.766				12.3207					
2.883					2.3621				
3.062						2.3779			
3.168	11.1478								
3.308			17.1033						
3.351		13.6364							
3.372							4.3780		
3.540				6.3215					
3.649					.5537				
3.844						3.6198			

ARC 3.5-185 IH20 01+T15+S8 ORB PHI=0.0 (QENA03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	38.6048
.005	24.5084
.010	16.8436
.020	7.6515
.030	4.6299
.040	3.9723
.050	2.6067
.060	2.1404
.070	1.5707
.080	1.1466
.090	1.7995
.100	5.6276
.120	24.8218
.130	13.5258
.140	8.9034
.150	4.4457
.160	4.1588
.170	2.1641
.180	3.1430
.190	3.1205
.200	4.9340
.225	4.6609
.250	6.9169
.275	7.1539
.300	7.5036
.325	6.6647
.350	5.2386
.375	4.8772
.400	4.7351
.425	3.6638
.450	4.1917
.475	4.6755
.500	5.1367
.525	4.3493
.550	5.0272
.575	4.3312
.600	4.4396
.625	3.6715

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ARC 3.5-185 IH20 01+T15+S8 ORB PHI=0.0 (QENA03)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	3.6472
.675	3.7214
.700	4.0805
.725	3.7575
.750	4.4828
.775	10.4711
.800	11.8982
.825	7.8498
.850	10.1536
.875	4.9358
.900	3.0209
.925	1.6088
.950	1.0149
.975	.8432
1.000	.6004
1.013	.0000
1.025	.7181
1.038	.0000
1.050	.5687

ARC 3.5-185 IH20 01+T15+S8 ORB Y=0.438 (QENB03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	4.3826
.200	6.8114
.300	6.3289

ARC 3.5-185 1H20 01+T15+58 ORB Y=0.875 (QENC03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	8.3109
.300	9.4607
.400	5.9565
.500	5.2448
.600	4.4818
.700	3.9486
.800	11.4794
.900	.9771

ARC 3.5-185 IH20 01+T15+S8 ORB C.C.L.TANGENT (QEND03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	4.3692
.100	2.6180
.150	6.3512
.200	9.5505

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ARC 3.5-185 IH20 01+T15+S8 ORB M.H.B.TANGENT (QENE03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	6.9322
.100	6.5546
.150	3.9391

ARC 3.5-185 IH20 01+T15+S8 ORB Z=6.125 (QENF03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	6.5436
.300	3.7370
.800	2.3212
.900	4.8376
.975	3.8859

ARC 3.5-185 IH20 01+T15+S8 WING UPPER CREASE (QENG03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	6.6275
.500	2.2352
.600	4.0451
.700	2.8591
.900	4.4689

ARC 3.5-185 IH20 01+T15+S8 ORB Z=7.525 (QENH03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	4.7742
.400	4.0281
.500	3.0695
.600	3.8705
.700	4.3192
.800	4.8238

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15+S8 ORB WINDOWS (QEN103) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	36.3842		
.164	27.5814		
.168	25.1110		
.170		48.5661	
.178			41.4852
.182	18.3030	29.9621	30.8639
.185			25.8455
.191			20.5802
.200		16.1749	

ARC 3.5-185 IH20 01+T15+58 ORB Z=8.379 (QENJ03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.18

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	2.7184
.400	2.9139
.500	2.2447
.600	2.7097
.700	2.8386

ARC 3.5-185 IH20 01+T15+58 ORB PHI=180 (QENK03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	24.5622
.025	13.4454
.050	10.1729
.075	8.8274
.100	14.6898
.125	13.0766
.150	20.6441
.160	41.0509
.170	45.9278
.180	34.7262
.200	7.1630
.250	.7978
.300	2.1677
.400	3.7353
.500	3.5068
.600	3.6694
.700	3.1235
.800	4.5533

ARC 3.5-185 IH20 01+T15+S8 OMS BOTTOM CREASE (QENL03) .1 12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.18

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	5.7442
.900	7.9567
.975	6.1225

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ARC 3.5-185 1H20 01+T15+S8 ORB Z=8.295 (QENM03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	12.0723
.805	23.0998
.829	13.5799
.862	10.2762
.963	6.4146
1.000	6.1976
1.014	5.0148

ARC 3.5-185 IH20 01+T15+S8 ORB PHI=130. (QENN03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	.0000
.829	15.9951
.862	7.9530
.963	4.3018

ARC 3.5-185 IH20 01+T15+S8 OMS TOP (QEN003) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	19.7192
.829	11.4432
.862	4.4482
.963	3.1069

ARC 3.5-185 IH20 01+T15+S8 OMS INSIDE (QENP03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	3.5479
.963	4.7191

ARC 3.5-185 1H20 01+T15+S8 ORB Y=1.75 (QENQ03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	1.1290
1.050	.9489

ARC 3.5-185 IH20 01+T15+58 BOTTOM RCS (QENR03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.8071
1.014	.6552

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ARC 3.5-185 IH20 01+T15+S8 SOLID BOOSTER (QENS03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI	90.0000	135.0000	180.0000	210.0000	215.0000	225.0000	240.0000	247.5000	260.0000	270.0000	315.0000
X/L											
.000	3.5369										
.002									34.4832		
.025	6.6821								9.8256		
.050	6.7174		8.3118						6.9092		
.075						5.4718			.0000		
.100	6.2772		24.9469			5.0873			12.9551		
.110									30.4150		
.115								28.6845			
.130									5.7440		
.150						5.3248			12.1447		
.200			14.1872			6.8503			4.5078		
.250									3.1374		
.300						4.9217		3.5259	3.1130	.4400	
.400	5.9596		5.9365			3.8426		3.6456	2.4389		
.500			4.9055			7.9327		5.7962	5.2540	2.1138	
.600			6.6723			7.7374		6.3743	4.7611		
.650			6.9855					7.2897	4.9871		
.700	2.1582	4.5421	6.2285			6.7558		6.8774	5.2648	1.7886	
.750			6.1507					6.1650	5.9047		
.780	4.4290		17.0969			11.9613			22.0194	1.7167	
.800	16.3107		10.9443			6.0300			5.3770	.9183	
.850			12.2438			9.4003			1.0067		
.900	11.9703	4.0845	6.5595			2.3907			.6455	.4129	
.904				7.4693							
.918				19.6804							
.925				13.4558	9.1968						
.930	8.0162	8.1734	15.1776			13.9609	5.6480		1.5093	1.1158	
.940					3.7568						
.950				6.1416							
.960			8.2467		3.7122	6.3544	5.0667		1.3532		
.970				2.4975							
.990	17.0016	7.8329	7.6873			4.3198	2.8346		1.0788	2.1617	

ARC 3.5-185 IH20 01+T15+S8 EXTERNAL TANK (QENT03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												30.8731			
.005												30.2950			
.010												35.1162			
.040	5.2039											23.1006			
.080	2.8792											17.0382	14.4556		
.150	1.6166											6.7968		5.9400	4.1652
.200				4.1713								4.0863			
.250				3.1774								3.2328			
.275				3.0674	3.4936										
.300			2.2490	6.6932	3.4222							3.1770		1.2134	
.325				19.1641	5.9258		3.2965								
.350			7.9220	14.6943	14.5158		4.6727					3.1007			
.375							4.3180					3.0220			
.400	1.8149	2.7473	1.9958	5.9559	5.5614		4.4125		3.9242		3.6893	5.1345			2.4874
.425									5.3211	6.9107		10.4101			
.450				3.5135	4.7382		6.7579		9.7722			21.2688			
.475									9.9927			6.9478			
.500		1.1044	.7219	2.5005	3.7864		4.8938		9.1555		4.9587	10.4686		8.8732	
.525												8.1987			
.550				2.4923	3.6818		9.2073		4.7389			5.8224			
.575												4.4943			
.600	1.5243	.8823	.3070	2.3369	3.3417		7.4111		4.1667			4.7734			1.2511
.625												5.9981			
.650			.9670	2.6429	4.9453		6.3209		3.9129			5.7546			
.675												4.6742			
.700		1.6525	1.9219	3.5037	6.3119		6.2019		4.3039		3.4172	4.1850		3.3871	
.750			1.1079	4.2952	7.3903		4.7197		3.3112			3.2026			
.800	1.0816	.9914	.4862	4.2820	6.3948		4.2506		2.1954			3.5870			2.3523
.825						6.8920									
.850				4.7513	5.5870	3.2417	5.2139		2.5267			3.5724			
.875						5.6130									
.900		1.0770	1.2298	4.6676	5.8878	5.9409	6.1574		7.0707		4.8611	7.0326		4.7859	
.925						11.9262									6.1719
.935								17.7916							
.937												11.5292			
.960						7.5603									
.975												1.5080			

ARC 3.5-185 IH20 01+T15+S8 EXTERNAL TANK (QENT03)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		5.1842	
.400	3.6761		6.0876
.500	5.2900		
.600			3.4236
.700	2.0698		
.800			2.3662

ARC 3.5-185 IH20 01+T15+S8 ORB Z=8.75 (QENU03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	4.0221
1.014	3.7874

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ARC 3.5-105 IH20 01+T15+S8 VERTICAL TAIL (QENV03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		15.5540	21.8120	.0000	31.9486
.100	11.3947	5.6424	7.4010	10.1646	15.6398
.300	12.9697	10.5717	3.9061	5.3163	
.500		10.9421	12.2299	3.8726	.0000
.700	1.9568	3.4118	3.4116	1.0484	
.900		3.5453	4.9828	.0000	

ARC 3.5-185 IH20 01+T15+S8 WING BOTTOM SURF. (QENW03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						41.8624		7.3832			16.0619	5.4764
.005		6.7978	7.7032		31.3753		25.8977			13.4095		
.025	9.7979			17.1983	18.5870		21.3482					
.050										13.1614		
.100				6.6769		6.2250	5.7371	9.6819		12.8039		
.153	6.5669											
.177					5.6520							
.200				5.4069		6.6764						
.299	4.2280											
.300					5.9214	4.9653		11.7455	10.8770	12.9945		
.302				4.9791								
.303							9.4816					
.428						6.5627						
.444	4.6404											
.487					5.6116							
.500							8.6334	10.3808		10.6183		
.559				7.0677								
.590	4.4580											
.600					6.3498	5.1148			6.7750			
.700				7.6740	6.2935	4.8361	3.6853			4.4123		
.736	8.3644											
.800						2.5033	2.3848					
.850						2.9177	2.8519					
.900	1.5945			5.9768	6.8501	3.2757	2.8259			3.1533		

ARC 3.5-185 IH20 01+T15+S8 WING UPPER SURF. (QENX03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	6.3541	12.0097	11.5321
.200	1.8700	4.3661	4.4137
.600	.2849	.5854	1.3061
.800		.5684	1.0802
.900		.4426	1.3541
.950	1.0483	.4023	.0000

ARC 3.5-185 IH20 01+T15+S8 CLUSTERS B AND C (QENY03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	41.8624	7.3832
.050	30.8837	16.6731
.100	22.8119	12.6828
.150	17.5537	9.5714
.200	13.7878	7.6167
.250	10.7101	4.7929
.300	7.4145	4.1851

ARC 3.5-185 IH20 01+T15+S8 ORBITER BODY (QENZ03) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.0544 PO = 404.60 TO = 1290.9 HO = 315.19

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	2.6067	5.6276	4.4457	4.9340	7.5036				
.238					6.3289				
.254				6.8114					
.278			8.2510						
.281		3.3062							
.474			11.7837						
.477					9.4607				
.499	4.3826								
.510				8.3109					
.555		1.2568							
.672				9.5505					
.696	4.3692								
.713					7.4482				
.728			6.3512						
.746		2.6180							
.780				8.1045					
.882					7.1131				
.890				7.1008					
1.002			4.3984						
1.003					6.1653				
1.087									3.6084
1.155			3.9391						
1.182		6.5546							
1.201				7.0440					
1.230	6.9322								
1.326								4.4689	
1.364					4.3064				
1.444									3.8859
1.458								4.8376	
1.459					4.0257				
1.554	5.9685				3.7370				
1.606								4.8127	
1.608				9.1412					
1.649					3.5122				
1.750						4.0451			
1.896								7.9567	
1.933									6.1225
1.975						4.7826			

ARC 3.5-185 IH20 01+T15+S8 ORBITER BODY (QENZ03)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				10.8162					
2.316					4.7742				
2.360	10.7635								
2.497						3.8705			
2.593						3.2323			
2.630		9.5497							
2.640						3.0084			
2.735							3.2699		
2.766				16.1749					
2.883					2.7184				
3.062						2.7097			
3.168	10.1729								
3.308			20.6441						
3.351		14.6898							
3.372							2.5358		
3.540				7.1630					
3.649					2.1677				
3.844						3.6694			

ARC 3.5-185 IH20 01+T15+S8+X28 OR8 PHI=0.0 (QENA04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	19.5448
.005	12.6557
.010	8.2372
.020	3.6004
.030	2.2450
.040	.0000
.050	1.0666
.060	1.6403
.070	2.4180
.080	3.3677
.090	6.8943
.100	14.5819
.120	4.5841
.130	2.6693
.140	1.8837
.150	1.3844
.160	1.7451
.170	2.0298
.180	2.0118
.190	2.9414
.200	3.4777
.225	2.0682
.250	2.2446
.275	2.0177
.300	1.6449
.325	1.5791
.350	1.4365
.375	1.7749
.400	2.0384
.425	1.9236
.450	1.8543
.475	1.6250
.500	1.6617
.525	1.4991
.550	1.6305
.575	1.4823
.600	1.5126
.625	1.3343

ARC 3.5-185 1H20 01+T15+S8+X28 ORB PH1=0.0 (QENA04)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PH1 .0000

X/L	
.650	1.3435
.675	1.1644
.700	1.1903
.725	.9166
.750	3.0227
.775	3.9758
.800	3.7929
.825	3.5708
.850	2.8125
.875	1.0880
.900	.8045
.925	.5484
.950	.3350
.975	.1876
1.000	.0759
1.013	.0000
1.025	.0530
1.038	.0000
1.050	.0657

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ARC 3.5-185 IH20 01+T15+S8+X28 ORB Y=0.438 (QEN804) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	1.5062
.200	3.0975
.300	1.9271

ARC 3.5-185 IH20 01+T15+S8+X28 ORB Y=0.875 (QENC04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	2.4660
.300	1.8089
.400	1.8722
.500	1.6545
.600	1.3619
.700	1.2613
.800	3.3704
.900	.4214

ARC 3.5-185 IH20 01+T15+S8+X28 ORB C.C.L.TANGENT (QEND04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	1.4998
.100	2.7975
.150	3.8526
.200	2.3827

ARC 3.5-185 IH20 01+T15+S8+X28 ORB M.H.B.TANGENT (QENE04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	2.3370
.100	1.1724
.150	1.7329

ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=6.125 (QENF04) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.		
LREF =	1290.3000 IN.	YMRP =	.0000 IN.		
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	1.7661
.300	.8649
.800	.4967
.900	1.2547
.975	.8972

ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER CREASE (QENG04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	1.1892
.500	.5294
.600	1.1306
.700	.7983
.900	1.4229

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ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=7.525 (QENH04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	.7476
.400	.7253
.500	.9269
.600	1.0180
.700	.9412
.800	1.5043

ARC 3.5-185 IH20 01+T15+S8+X28 ORB WINDOWS (QEN104) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	15.6845		
.164	15.3412		
.168	13.0321		
.170		21.5558	
.178			20.3071
.182	7.8798	11.5671	14.7905
.185			10.7156
.191			8.7510
.200		5.5567	

ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=8.379 (QENJ04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	.7366
.400	.4779
.500	.0864
.600	.6662
.700	1.2440

ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=180 (QENK04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	11.7017
.025	6.6915
.050	4.4652
.075	3.0757
.100	2.6254
.125	1.9252
.150	5.9708
.160	20.6757
.170	20.7747
.180	17.0347
.200	2.7313
.250	.3727
.300	.2063
.400	.2975
.500	1.1630
.600	1.4066
.700	1.2324
.800	1.5859

ARC 3.5-185 IH20 01+T15+S8+X28 OMS BOTTOM CREASE (QENL04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	1.6376
.900	2.1762
.975	1.5416

ARC 3.5-105 IH20 01+T15+S8+X20 ORB Z=8.295 (QENM04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	5.7728
.805	5.6464
.829	4.4431
.862	2.9362
.963	1.9841
1.000	2.0415
1.014	.0000

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ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=130. (QENN04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .9000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	5.9064
.829	5.4209
.862	2.7001
.963	1.9008

ARC 3.5-185 IH20 01+T15+S8+X28 OMS TOP (QEN004) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.98

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	5.4269
.829	4.5166
.862	2.0971
.963	1.4406

ARC 3.5-105 IH20 01+T15+S8+X28 OMS INSIDE (QENP04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	1.9204
.963	2.4760

ARC 3.5-185 IH20 01+T15+S8+X28 ORB Y=1.75 (QEN004) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.4220
1.050	.5208

ARC 3.5-185 IH20 01+T15+S8+X28 BOTTOM RCS (QENR04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.1481
1.014	.3027

ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER (QENS04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.98

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI	90.0000	135.0000	180.0000	210.0000	215.0000	225.0000	240.0000	247.5000	260.0000	270.0000	315.0000
X/L											
.000	17.4524										
.002									22.5427		
.025	2.8593								5.8733		
.050	2.0983		4.9379						3.3865		
.075						2.6042			.0000		
.100	1.0916		2.8144			2.2554			5.1242		
.110									15.6310		
.115								14.9430			
.130									1.3534		
.150						2.1604			2.9383		
.200			1.8938			2.6424			1.3469		
.250									.9214		
.300						1.4198		.8874	.8032	.1511	
.400	.7218		.9305			1.1571		1.5464	1.3053		
.500			2.2752			1.6309		1.9888	2.1964	.6644	
.600			1.5350			1.8468		1.7254	1.6047		
.650			.0000					1.7036	1.6208		
.700	.2433	.9110	1.6519			1.5679		1.4976	1.5084	.5918	
.750			1.7634					2.5590	2.4202		
.780	.5952		6.5639			.0000			12.2020	2.2178	
.800	.1903		5.7354			5.0548			.9396	1.1325	
.850			2.1605			2.8455			.5104		
.900	.0000	1.1947	2.0498			.5750			.2531	.6954	
.904				1.7734							
.918				7.0295							
.925				5.3062	3.0691						
.930	.5122	2.6869	4.9858			6.6674	1.8818		.4752	1.3850	
.940					1.0292						
.950				1.7196							
.960			3.4478		.8538	2.4674	1.8949		.8876		
.970				.5701							
.990	.8358	2.1242	2.3790			1.8479	1.0393		1.4331	1.2902	

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ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK (QENT04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												20.4142			
.005												16.1782			
.010												18.1674			
.040	3.3492											7.9605			
.080	1.8275											5.5149	3.9993		
.150	.9487											3.6112		2.5778	2.4089
.200				1.1672								1.5153			
.250				.6408								.9365			
.275				.4891	.7159										
.300			.6582	4.5285	.6760							1.2155		.0000	
.325				11.1633	2.2572		.9348								
.350			3.7014	4.6810	5.9351		2.3996					1.4592			
.375							1.4000					1.3334			
.400	1.0564	1.2144	.4436	1.9745	1.7583		1.0828		1.9984		.0000	2.7688			1.1122
.425									3.5189	3.8539		5.6095			
.450				1.1648	1.0557		1.3431		4.7534			11.8377			
.475									4.1654			2.1646			
.500		.0000	.1728	.8700	.7093		4.1395		2.5922		2.0623	2.8842		3.2405	
.525												2.6873			
.550				1.0412	1.7824		3.0852		1.3811			2.5588			
.575												2.4321			
.600	1.2313	.2083	.2210	1.3627	2.4130		1.9823		1.5618			2.3758			1.1216
.625												2.2275			
.650			.0000	1.9946	1.8000		1.8084		1.1339			2.3128			
.675												2.3117			
.700		.8124	.2494	1.9156	3.0201		1.4592		1.3714		2.0324	2.2933		1.8058	
.750			.3239	1.7873	2.6603		1.2774		.9490			1.8577			
.800	.7524	.6016	.4439	1.7280	2.4066		1.4073		.6008			1.7100			1.1329
.825						3.1307									
.850				1.7977	2.2206	1.8502	2.2555		1.1405			1.3919			
.875						2.2482									
.900		.6723	1.3046	2.3666	2.0592	1.8279	1.8470		1.7351		2.1356	2.9044		2.0990	
.925						5.4294									5.4951
.935								7.0368							
.937												4.5584			
.960						2.6340									
.975												.6532			

ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK (QENT04)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		2.0790	
.400	2.3055		3.3415
.500	3.2326		
.600			1.4263
.700	2.0514		
.800			1.1796

ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=8.75 (QENU04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	1.6768
1.014	1.5062

ARC 3.5-185 IH20 01+T15+S8+X28 VERTICAL TAIL (QENV04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		11.8909	12.6748	.0000	19.3760
.100	2.5479	2.2662	3.2434	4.2665	6.9117
.300	5.0275	2.0199	.9074	2.0873	
.500		4.1407	1.8344	1.4593	.0000
.700	.9039	1.1040	1.3244	.4330	
.900		.8226	1.4603	.0000	

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ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF. (QEN404) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						11.5954		2.7786			3.0515	1.0759
.005		1.7239	1.8682		8.1386		.0000			3.9026		
.025	2.4269			4.7545	5.3235		7.2519					
.050										3.2474		
.100				1.5245		1.6779	2.0355	2.6438		3.1698		
.153	2.1932											
.177					.0000							
.200				.8206		1.0443						
.299	1.3131											
.300					.5960	.6858		1.3619	1.4942	1.6545		
.302				.9957								
.303							1.1056					
.428						.8748						
.444	1.4253											
.487					1.5156							
.500							.9231	1.4451		1.1349		
.559				2.8422								
.590	1.0714								.6279			
.600					3.1717	2.6015						
.700				4.4642	2.8479	2.0389	.4037			.0000		
.736	6.1095											
.800						1.1741	.7901					
.850						1.4497	.9988					
.900	.2338			.7168	1.4660	1.6052	1.1028			.2743		

ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER SURF. (QENX04) (12 SEP 75)

REFERENCE DATA

SREF = 2698.8000 SQ.FT. XMRP = .0000 IN.
LREF = 1298.3000 IN. YMRP = .0000 IN.
BREF = 1298.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO . = 314.96

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	5.4627	5.4475	7.7024
.200	1.3322	1.4028	1.9313
.600	.0617	.2537	.4350
.800		.1412	.3436
.900		.1297	.3389
.950	.2262	.1057	.0000

ARC 3.5-185 IH20 01+T15+S8+X28 CLUSTERS B AND C (QENY04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.8008 SQ.FT. XMRP = .8080 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0800 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	11.5954	2.7786
.050	5.1817	4.9865
.100	7.4115	3.8516
.150	5.7551	2.9034
.200	4.4500	2.2681
.250	3.4731	1.5026
.300	2.2987	1.2758

ARC 3.5-185 IH20 01+T15+S8+X28 ORBITER BODY (QENZ04) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5360 PO = 122.89 TO = 1290.0 HO = 314.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	1.0666	14.5819	1.3844	3.4777	1.6449				
.238					1.9271				
.254				3.0975					
.278			3.0687						
.281		11.4397							
.474			3.0967						
.477					1.8089				
.489	1.5062								
.510				2.4660					
.555		3.0382							
.672				2.3827					
.696	1.4998								
.713					1.8479				
.728			3.8526						
.746		2.7975							
.780				3.0228					
.882					2.0689				
.890				2.7651					
1.002			2.5318						
1.003					1.9816				
1.087								1.0924	
1.155			1.7329						
1.182		1.1724							
1.201				2.0046					
1.230	2.3370								
1.326							1.4229		
1.364					.6815				
1.444								.8972	
1.458							1.2547		
1.459					.7832				
1.554	2.3602				.8649				
1.606							1.0635		
1.608				2.9874					
1.649					.7853				
1.750						1.1306			
1.896							2.1762		
1.933								1.5416	
1.975						.8682			

ARC 3.5-185 IH20 01+T15+S8+X28 ORBITER BODY (QENZ04)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				2.7841					
2.316					.7476				
2.360	4.1863								
2.497						1.0180			
2.593						1.2042			
2.630		3.1332							
2.640						1.2853			
2.735							1.4504		
2.766				5.5567					
2.883					.7366				
3.062						.6662			
3.168	4.4652								
3.308			5.9708						
3.351		2.6254							
3.372							1.8073		
3.540				2.7313					
3.649					.2063				
3.844						1.4066			

ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=0.0 (QENA05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	33.7213
.005	23.5474
.010	15.7319
.020	6.7903
.030	4.5952
.040	.0000
.050	2.3440
.060	1.4326
.070	1.1411
.080	2.5812
.090	3.9751
.100	11.3994
.120	20.7847
.130	11.9464
.140	7.2033
.150	7.2795
.160	4.2413
.170	4.7558
.180	4.5856
.190	4.3966
.200	3.6366
.225	5.0995
.250	5.0972
.275	6.4601
.300	5.0250
.325	5.0663
.350	4.3343
.375	4.5835
.400	3.8299
.425	3.8106
.450	5.4107
.475	5.1352
.500	4.9292
.525	4.3358
.550	3.8599
.575	3.6923
.600	3.7564
.625	3.8830

ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=0.0 (QENA05)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QBOT

PHI .0000

X/L	
.650	3.9652
.675	3.9703
.700	3.5913
.725	3.6971
.750	5.2684
.775	5.5919
.800	8.7968
.825	9.9137
.850	7.9594
.875	3.7113
.900	2.0119
.925	1.4581
.950	.8498
.975	.5543
1.000	.3091
1.013	.0000
1.025	.1251
1.038	.0000
1.050	.1340

ARC 3.5-185 IH20 01+T15+S0+X20 ORB Y=0.438 (QEN005) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	3.3642
.200	4.3090
.300	5.1973

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ARC 3.5-185 IH20 01+T15+S8+X28 ORB Y=0.875 (QENC05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .8175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	4.6636
.300	5.7302
.400	3.8159
.500	3.7258
.600	3.1387
.700	3.2570
.800	7.6606
.900	1.4778

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH28 01+T15+S8+X28 OR8 C.C.L.TANGENT (QEND05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY

DEPENDENT VARIABLE QDOT

CCLT 1.9000

X/L	
.050	3.4621
.100	3.1624
.150	9.0276
.200	5.7156

ARC 3.5-185 IH20 01+T15+S8+X28 ORB M.H.B.TANGENT (QENE05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	4.9890
.100	5.3699
.150	5.4777

ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=6.125 (QENF05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8848 PO = 404.33 TO = 1318.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	3.4356
.300	3.1085
.800	1.4326
.900	2.2466
.975	2.1104

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ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER CREASE (QENG05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	3.3736
.500	1.7341
.600	3.0877
.700	2.2243
.900	3.1072

ARC 3.5-185 IH20 01+T15+S8+X28 ORB Z=7.525 (QENH05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	2.6287
.400	2.5614
.500	2.6414
.600	2.2339
.700	2.4746
.800	3.5128

ARC 3.5-185 IH20 01+T15+S8+X28 ORB WINDOWS (QEN105) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	31.0275		
.164	25.1836		
.168	22.3320		
.170		40.2007	
.178			42.2282
.182	16.5597	24.3702	30.8944
.185			24.3168
.191			19.1476
.200		12.8344	

ARC 3.5-185 IH20 01+T15+S8+X28 OR0 Z=0.379 (QENJ05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1298.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	2.4326
.400	2.5324
.500	2.6463
.600	2.4180
.700	2.7629

ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=180 (QENK05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	22.0523
.025	14.3344
.050	13.7037
.075	13.3429
.100	14.3401
.125	11.8643
.150	14.7770
.160	36.1618
.170	41.7272
.180	32.0595
.200	6.5575
.250	1.0090
.300	1.2341
.400	2.9721
.500	3.5205
.600	3.7313
.700	3.6766
.800	5.7865

ARC 3.5-185 IH20 01+T15+S8+X28 OMS BOTTOM CREASE (QENL05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	3.3840
.900	5.3689
.975	4.2759

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ARC 3.5-185 IH20 01+T15+S8+X28 OR8 Z=8.295 (QENM05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	9.9643
.805	7.2514
.829	7.4087
.862	6.0122
.963	4.5118
1.000	6.7530
1.014	3.8182

ARC 3.5-185 IH20 01+T15+S8+X28 ORB PHI=130. (QENN05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	12.6359
.829	11.6693
.862	6.5049
.963	4.7483

ARC 3.5-185 1H20 01+T15+S8+X28 OMS TOP (QEN005) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	15.9930
.829	12.5339
.862	5.1507
.963	3.5022

ARC 3.5-185 IH20 OI+T15+S8+X28 OMS INSIDE (QENP05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	5.5560
.963	5.4582

ARC 3.5-185 IH20 01+T15+S0+X20 ORB Y=1.75 (QENQ05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	1.4984
1.050	1.6154

ARC 3.5-185 IH20 01+T15+S0+X20 BOTTOM RCS (QENR05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 484.33 TO = 1316.9 HO = 321.87

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.5637
1.014	.7672

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ARC 3.5-185 IH20 01+T15+S8+X28 SOLID BOOSTER (QENS05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI	90.0000	135.0000	180.0000	210.0000	215.0000	225.0000	240.0000	247.5000	260.0000	270.0000	315.0000
X/L											
.000	25.7261										
.002									32.5995		
.025	4.8627								8.7814		
.050	3.3879		8.3148						5.4014		
.075						4.8753			.0000		
.100	3.2036		5.2317			4.6040			12.4065		
.110									32.0927		
.115								26.9673			
.130									4.1920		
.150						4.3549			5.9864		
.200			4.2892			4.1497			3.5958		
.250									2.8666		
.300						3.3383		3.0732	2.5843	.3617	
.400	1.7732		2.9276			3.6304		4.9547	2.7934		
.500			5.9350			6.8253		6.9111	5.0473	1.6636	
.600			4.5646			6.5581		6.1447	4.6819		
.650			4.7503					6.3375	4.6580		
.700	.7306	2.1116	4.5038			5.0272		5.5992	4.4565	1.3286	
.750			3.8891					7.4374	7.0671		
.780	1.3824		12.8857			.0000			22.6706	1.5206	
.800	.1498		10.0054			6.4284			1.9534	1.0649	
.850			5.4795			5.9643			.6175		
.900	.0000	2.3263	4.3037			1.3258			.4474	.9708	
.904				4.6742							
.918				13.1910							
.925				10.2955	6.0600						
.930	.9851	6.2619	12.3971			10.5532	3.7379		1.2453	2.6696	
.940					2.3638						
.950				2.9331							
.960			6.4384		1.8642	3.9070	2.7918		2.4285		
.970				1.4310							
.990	2.1438	5.0801	5.5207			2.9409	1.4805		2.6735	3.0946	

ARC 3.5-105 IH20 01+T15+S8+X20 EXTERNAL TANK (QENT05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												33.4169			
.005												33.0361			
.010												34.1922			
.040	5.5417											23.6568			
.080	2.8741											18.9922	13.7234		
.150	3.2952											9.1809		6.9434	6.1860
.200				3.5234								4.8921			
.250				2.5263								3.6273			
.275				2.4969	2.8455										
.300			2.0754	9.5433	2.7992							3.4515		2.9606	
.325				23.8143	6.3955		3.2990								
.350			7.3730	12.3851	15.5709		5.6328					3.2578			
.375							3.0223					3.1563			
.400	1.6544	2.0402	1.2219	4.4438	5.2357		2.8623		5.2653		4.4087	5.7104			3.0480
.425									7.0594	8.7925		10.1652			
.450				2.9074	4.8568		6.4268		9.7166			25.2677			
.475									10.2347			6.2219			
.500		.0000	.4092	2.2115	4.3515		12.4921		6.9762		6.5591	13.0420		8.7550	
.525												8.4848			
.550				2.4249	5.0127		9.4378		4.5127			5.7024			
.575												5.1546			
.600	3.1177	.9776	.3059	2.7338	6.1110		6.1925		2.4244			5.5787			3.0099
.625												6.2640			
.650			.8660	4.2217	5.8211		5.0973		2.9903			6.3175			
.675												5.7700			
.700		1.7706	.5085	5.6142	6.8005		5.9476		3.1319		4.5430	4.8013		3.9121	
.750			.7918	5.5457	7.2197		5.0832		2.6936			5.0792			
.800	1.7755	1.1316	1.1825	4.8690	6.0167		5.4714		2.0592			4.1874			2.8982
.825						6.7833									
.850				4.9968	5.0060	3.6518	6.4718		3.0379			3.9380			
.875						5.2398									
.900		1.3929	2.1747	4.5771	5.1339	5.6195	5.8222		4.6490		5.1653	6.1660		5.0576	
.925						6.5876									11.3039
.935								15.5031							
.937												10.9796			
.960						6.9282									
.975												1.8165			

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ARC 3.5-185 IH20 01+T15+S8+X28 EXTERNAL TANK (QENT05)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		4.0208	
.400	5.1794		8.9434
.500	7.0589		
.600			3.8455
.700	4.8837		
.800			2.7591

ARC 3.5-185 IH20 01+T15+S8+X28 OR8 Z=8.75 (QENU05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	4.0944
1.014	3.7073

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OF POOR QUALITY

ARC 3.5-185 IH20 01+T15+S8+X28 VERTICAL TAIL (QENV05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		19.1309	17.9309	.0000	33.9229
.100	5.6310	5.0316	5.7705	8.1465	16.1794
.300	11.3465	6.9981	2.7808	4.6364	
.500		10.6600	4.9947	3.9574	.0000
.700	1.7612	2.6693	2.6432	1.0249	
.900		2.6817	3.3436	.0000	

ARC 3.5-185 IH20 01+T15+S8+X28 WING BOTTOM SURF. (QEN405) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						28.8278		5.3055			6.0335	2.5852
.005		4.2398	4.6526		20.2367		.0000			8.3404		
.025	4.5374			9.5621	12.4900		14.9262					
.050										6.6366		
.100				3.4632		3.4724	3.6657	6.1973		6.3732		
.153	6.3199											
.177					.0000							
.200				3.4591		2.7742						
.299	3.3817											
.300					3.1267	3.4072		5.3286	4.3282	3.8407		
.302				4.0305								
.303							4.2475					
.428						4.8005						
.444	3.4948											
.487					5.6257							
.500							5.2775	6.6454		4.5056		
.559				4.5707								
.590	2.7862											
.600					4.9692	4.7810			2.7532			
.700				7.5483	5.2544	3.3719	1.9546			2.0614		
.736	10.5467											
.800						2.8459	2.5932					
.850						3.4254	2.7867					
.900	.6034			1.5228	3.6292	2.9297	1.9533			1.5371		

ARC 3.5-185 IH20 01+T15+S8+X28 WING UPPER SURF. (QENX05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)WING

DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	15.5956	18.0651	25.9289
.200	4.3625	5.8326	9.1277
.600	.2380	1.0396	2.2762
.800		.7318	2.1010
.900		1.0757	2.5437
.950	1.0144	1.0900	.0000

ARC 3.5-185 IH20 01+T15+S8+X28 CLUSTERS B AND C (QENY05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	28.8278	5.3055
.050	19.3357	11.0624
.100	16.7443	8.5192
.150	13.5351	6.3889
.200	10.4124	4.9892
.250	8.4956	3.5545
.300	5.9357	2.9377

ARC 3.5-185 IH20 01+T15+S8+X28 ORBITER BODY (QENZ05) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8946 PO = 404.33 TO = 1316.9 HO = 321.87

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	2.3440	11.3994	7.2795	3.6366	5.0250				
.238					5.1973				
.254				4.3090					
.278			9.0775						
.281		8.4455							
.474			9.2268						
.477					5.7302				
.499	3.3642								
.510				4.6636					
.555		4.3735							
.672				5.7156					
.696	3.4621								
.713					5.7227				
.728			9.0276						
.746		3.1624							
.780				7.0862					
.882					5.4102				
.890				6.9797					
1.002			6.4436						
1.003					4.6267				
1.087								2.0707	
1.155			5.4777						
1.182		5.3699							
1.201				5.6027					
1.230	4.9890								
1.326							3.1072		
1.364					2.1045				
1.444								2.1104	
1.458							2.2466		
1.459					2.7362				
1.554	5.2679				3.1085				
1.606							2.3069		
1.608				6.4767					
1.649					2.8034				
1.750						3.0877			
1.896							5.3689		
1.933								4.2759	
1.975						2.5113			

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15+S8+X28 ORBITER BODY (QENZ05)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				7.8038					
2.316					2.6287				
2.360	11.1468								
2.497						2.2339			
2.593						2.6644			
2.630		12.5714							
2.640						2.9195			
2.735							3.5549		
2.766				12.8344					
2.883					2.4326				
3.062						2.4180			
3.168	13.7037								
3.308			14.7770						
3.351		14.3401							
3.372							4.3147		
3.540				6.5575					
3.649					1.2341				
3.844						3.7313			

ORIGINAL PAGE IS OF POOR QUALITY

ARC 3.5-185 IH20 01+T15 ORB PHI=0.0 (QENA06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	26.6958
.005	17.0500
.010	.0000
.020	5.0855
.030	3.5411
.040	.0000
.050	3.4784
.060	5.0932
.070	7.4477
.080	7.7080
.090	15.9131
.100	20.2603
.120	7.4070
.130	3.9667
.140	3.6741
.150	3.6443
.160	3.5144
.170	3.1614
.180	2.6135
.190	2.3490
.200	4.4524
.225	4.5295
.250	4.1334
.275	4.4706
.300	3.0733
.325	2.9883
.350	1.8974
.375	2.2790
.400	3.1731
.425	3.8780
.450	3.4786
.475	2.9417
.500	2.4280
.525	2.1932
.550	2.1314
.575	2.7989
.600	3.0833
.625	2.9379

ARC 3.5-185 IH20 01+T15 ORB PHI=0.0 (QENA06)

MACH (1) = 5.300 ALPHA (1) = .000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	2.5946
.675	2.2826
.700	1.9631
.725	2.2405
.750	5.0191
.775	5.4045
.800	5.3506
.825	7.7092
.850	5.5731
.875	2.2115
.900	1.2730
.925	1.0411
.950	.6770
.975	.4185
1.000	.4005
1.013	.0000
1.025	.4870
1.038	.0000
1.050	.5982

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 ORB Y=0.438 (QENB06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY

DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	2.7019
.200	1.9318
.300	3.5525

ARC 3.5-185 IH20 01+T15 ORB Y=0.875 (QENC06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	1.7218
.300	2.8717
.400	3.0446
.500	2.7662
.600	2.5329
.700	2.0361
.800	5.6013
.900	.8119

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ARC 3.5-185 IH20 01+T15 ORB C.C.L.TANGENT (QEN006) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	2.3842
.100	5.4599
.150	5.0644
.200	3.1788

ARC 3.5-105 IH20 01+T15 ORB M.H.B.TANGENT (QENE06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	3.1271
.100	2.6069
.150	4.7904

ARC 3.5-185 IH20 01+T15 ORB Z=6.125 (QENF06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	2.9049
.300	1.9785
.800	.7922
.900	1.6478
.975	1.4022

ARC 3.5-185 IH20 01+T15 WING UPPER CREASE (QENG06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)WING

DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	2.2309
.500	1.2359
.600	2.1842
.700	1.5000
.900	1.9454

ARC 3.5-185 IH20 01+T15 ORB Z=7.525 (QENH06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	1.5632
.400	2.1270
.500	2.0523
.600	2.1829
.700	1.8824
.800	2.1687

ARC 3.5-185 IH20 01+T15 ORB WINDOWS (QEN106) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.008

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	31.3337		
.164	23.6889		
.168	20.6107		
.170		33.8458	
.178			39.7132
.182	14.1216	19.7129	28.3881
.185			21.3409
.191			17.3678
.200		10.1769	

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ARC 3.5-185 IH20 01+T15 ORB Z=8.379 (QENJ06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5:000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	1.9664
.400	2.1929
.500	2.2821
.600	1.6736
.700	1.7991

ARC 3.5-185 IH20 01+T15 ORB PHI=180 (QENK06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	16.7701
.025	9.4316
.050	6.7325
.075	6.7498
.100	7.9289
.125	8.5707
.150	15.1240
.160	30.6505
.170	34.2282
.180	28.4965
.200	6.3365
.250	.8717
.300	.3964
.400	1.8072
.500	1.6522
.600	1.8173
.700	2.1527
.800	3.5267

ARC 3.5-185 IH20 01+T15 OMS BOTTOM CREASE (QENL06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	2.8724
.900	4.1563
.975	3.2779

ARC 3.5-185 IH20 01+T15 ORB Z=8.295 (QENM06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY

DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	9.9424
.805	10.3974
.829	7.4521
.862	4.7669
.963	3.2901
1.000	.0000
1.014	.0000

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 ORB PHI=130. (QENN06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY

DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	14.8124
.829	9.6673
.862	4.0159
.963	.0000

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 OMS TOP (QEN006) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)OMS

DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	3.7474
.829	9.2998
.862	3.5656
.963	3.1747

ARC 3.5-185 IH20 01+T15 OMS INSIDE (QENP06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	4.2567
.963	3.3875

ARC 3.5-185 IH20 01+T15 ORB Y=1.75 (QENQ06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.6870
1.050	.6491

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ARC 3.5-185 1H20 01+T15 BOTTOM RCS (QENR06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.5450
1.014	.7296

ARC 3.5-185 IH20 01+T15 EXTERNAL TANK (QENT06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												33.4194			
.010												34.9648			
.040	8.3715											22.2632			
.080	5.5894											15.6934	12.1301		
.150	3.2254											5.4172		4.5601	4.9193
.200				3.1134								2.7409			
.250				2.2841								1.9853			
.275				2.3449	2.3393										
.300			1.6452	2.3279	2.3197							1.9854		.0000	
.325				2.3034	2.2813		2.1931								
.350			2.3224	2.5431	2.2902		2.2028					1.8815			
.375							2.1875					2.8783			
.400	2.4632	2.7123	2.6837	2.2882	2.2836		2.2187		3.5643		3.6938	3.1648			1.9730
.425									4.2933	4.3946		7.9980			
.450				2.4163	2.4682		2.5845		4.3091			20.5955			
.475									3.1260			3.5042			
.500		.0000	2.6907	2.3794	2.2445		2.8628		3.7505		4.6847	4.1255		6.4327	
.525												5.9380			
.550				2.4887	2.6962		4.2657		2.6221			4.1416			
.575												4.2060			
.600	2.4047	2.4370	2.6453	2.0057	2.2041		4.6660		3.3061			4.6018			2.4884
.625												4.2664			
.650			2.4479	2.4669	2.8189		4.9832		2.6303			3.4523			
.675												3.0991			
.700		2.4431	1.9387	2.1623	3.6482		4.7780		2.1960		3.0734	3.8220		2.2082	
.750			1.7694	2.3586	3.8487		3.9096		2.3129			3.2029			
.800	2.3333	2.0680	2.0823	2.3839	3.6346		3.9033		1.3980			2.5619			2.0329
.825						6.5354									
.850				2.5803	3.8035	1.9793	5.7416		1.9734			3.1743			
.875						2.7167									
.900		1.8521	2.4772	2.9321	4.0870	3.5263	3.1257		3.6155		3.5946	5.0750		3.7834	
.925						5.5558									8.4037
.935								10.8250							
.937												9.6134			
.960						1.1508									
.975												1.2856			

ARC 3.5-185 IH20 01+T15 EXTERNAL TANK (QENT06)

MACH (1) = 5.300 ALPHA (1) = .000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		1.8529	
.400	2.3230		2.4017
.500	7.5288		
.600			2.2421
.700	2.9958		
.800			1.6647

ARC 3.5-185 IH20 01+T15 ORB Z=8.75 (QENU06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	2.9733
1.014	2.6635

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ARC 3.5-185 IH20 01+T15 VERTICAL TAIL (QENV06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		19.4796	15.7529	.0000	28.9238
.100	4.3645	4.4875	4.4421	5.7182	11.4799
.300	7.9509	2.3702	2.4867	2.9544	
.500		6.9916	2.0151	2.2273	.0000
.700	1.6468	2.4274	.5352	.6310	
.900		1.9717	1.2734	.0000	

ARC 3.5-185 IH20 01+T15 WING BOTTOM SURF. (QENW06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9830
X/C												
.000						22.2789		4.4307			4.8951	2.1022
.005		2.1614	3.0346		17.7126		.0000			6.5642		
.025	3.3279			7.7769	10.7121		13.0261					
.050										5.5744		
.100				2.9295		2.9570	4.0981	6.0686		5.3846		
.153	2.3614											
.177					.0000							
.200				2.6321		2.6212						
.299	2.4087											
.300					3.2420	3.6007		6.6585	7.4482	6.2039		
.302				3.1845								
.303							4.7450					
.428						4.9568						
.444	2.4188											
.487					4.4185							
.500							5.5719	7.2747		6.0581		
.559				4.2843								
.590	2.2535											
.600					4.5572	3.6341			3.1520			
.700				3.7147	2.7603	2.7371	2.1586			.0000		
.736	10.7558											
.800						2.1044	1.9900					
.850						2.3372	2.0668					
.900	.4813			1.7076	1.7174	1.6879	1.3533			1.8362		

ARC 3.5-185 IH20 01+T15 WING UPPER SURF. (QENX06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.80

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	12.6102	11.8443	14.0378
.200	3.2905	4.1644	4.1346
.600	.1269	.6552	1.0461
.800		.3299	.8935
.900		.4957	1.1454
.950	.4897	.4163	.0000

ARC 3.5-185 IH20 01+T15 CLUSTERS B AND C (QENY06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	22.2789	4.4307
.050	17.5921	9.1718
.100	13.7767	7.5644
.150	11.3916	5.7598
.200	8.5760	4.8056
.250	6.9221	3.8617
.300	5.2615	3.3747

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ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ06) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = .000 RN/L = 4.9376 PO = 402.62 TO = 1305.7 HO = 319.00

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	3.4784	20.2603	3.6443	4.4524	3.0733				
.238					3.5525				
.254				1.9318					
.278			3.5778						
.281		19.6080							
.474			4.1934						
.477					2.8717				
.499	2.7019								
.510				1.7218					
.555		6.2154							
.672				3.1788					
.696	2.3842								
.713					3.8189				
.728			6.0644						
.746		5.4599							
.780				4.3767					
.882					3.8330				
.890				4.0842					
1.002			3.5875						
1.003					2.9680				
1.087								1.1645	
1.155			4.7904						
1.182		2.6069							
1.201				4.1340					
1.230	3.1271								
1.326							1.9454		
1.364					1.6289				
1.444								1.4022	
1.458							1.6478		
1.459					1.8371				
1.554	3.7723				1.9785				
1.606							1.6941		
1.608				5.0094					
1.649					1.9070				
1.750						2.1842			
1.896							4.1563		
1.933								3.2779	
1.975						1.4074			

ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ06)

MACH (1) = 5.300 ALPHA (1) = .000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				4.9165					
2.316					1.5632				
2.360	6.3310								
2.497						2.1829			
2.593						2.5374			
2.630		7.3994							
2.640						2.7605			
2.735							2.5726		
2.766				10.1769					
2.883					1.9664				
3.062						1.6736			
3.168	6.7325								
3.308			15.1240						
3.351		7.9289							
3.372							1.9110		
3.540				6.3365					
3.649					.3964				
3.844						1.8173			

ARC 3.5-185 IH20 01+T15 ORB PHI=0.0 (QENA07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 . RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	22.2927
.005	15.6262
.010	.0000
.020	4.7936
.030	3.6168
.040	.0000
.050	3.8169
.060	5.0663
.070	7.7799
.080	6.9867
.090	15.1724
.100	16.7589
.120	5.7822
.130	4.1595
.140	3.3966
.150	3.2705
.160	2.1846
.170	2.0478
.180	1.2743
.190	2.7672
.200	4.7676
.225	4.0162
.250	3.6709
.275	3.4434
.300	2.3672
.325	2.2612
.350	1.5633
.375	2.5969
.400	3.1600
.425	3.2173
.450	2.4572
.475	2.2843
.500	1.8774
.525	2.6225
.550	2.6634
.575	2.7849
.600	2.2980
.625	2.3932

ARC 3.5-185 IH20 01+T15 ORB PHI=0.0 (QENA07)

MACH (1) = 5.300 ALPHA (1) = 5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	2.2323
.675	2.7895
.700	4.0929
.725	6.1149
.750	4.1536
.775	4.7653
.800	6.0511
.825	7.1993
.850	3.9604
.875	1.8019
.900	1.4386
.925	.9434
.950	.3736
.975	.2204
1.000	.0383
1.013	.0000
1.025	.0971
1.038	.0000
1.050	.1013

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ARC 3.5-185 IH20 01+T15 ORB Y=0.438 (QENB07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	2.3145
.200	2.1429
.300	2.3980

ARC 3.5-185 IH20 01+T15 ORB Y=0.875 (QENC07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	1.4381
.300	2.4419
.400	2.9365
.500	2.2604
.600	2.2274
.700	4.4279
.800	6.0066
.900	.7035

ARC 3.5-185 IH20 01+T15 ORB C.C.L.TANGENT (QEN007) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO. = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	2.0361
.100	5.3558
.150	4.7212
.200	2.9584

ARC 3.5-185 IH20 01+T15 ORB M.H.B.TANGENT (QENE07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	2.8356
.100	2.2248
.150	4.3620

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ARC 3.5-185 IH20 01+T15 ORB Z=6.125 (QENF07) (12.SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	2.3995
.300	1.3213
.800	.8206
.900	1.8993
.975	1.2955

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 WING UPPER CREASE (QENG07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	1.9024
.500	.8429
.600	1.5655
.700	1.0764
.900	1.7434

ARC 3.5-185 IH20 01+T15 ORB Z=7.525 (QENH07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	1.8016
.400	1.7215
.500	1.8989
.600	1.9387
.700	1.6871
.800	1.6672

ARC 3.5-185 IH20 01+T15 ORB WINDOWS (QEN107) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	21.8659		
.164	19.0472		
.168	17.5667		
.170		26.5574	
.178			30.7448
.182	11.9296	15.1965	22.4565
.185			16.7503
.191			13.5888
.200		7.5072	

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ARC 3.5-185 IH20 01+T15 ORB Z=8.379 (QENJ07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	1.2570
.400	.9704
.500	1.7281
.600	1.5496
.700	1.4298

ARC 3.5-185 IH20 01+T15 ORB PHI=180 (QENK07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	12.6747
.025	6.6333
.050	4.1373
.075	2.8368
.100	2.6502
.125	2.7252
.150	8.0997
.160	23.7653
.170	26.0615
.180	21.8173
.200	4.2137
.250	.5886
.300	.1518
.400	.8655
.500	1.3902
.600	1.3245
.700	1.6739
.800	2.3646

ARC 3.5-185 IH20 01+T15 OMS BOTTOM CREASE (QENL07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	2.2626
.900	2.8855
.975	2.2634

ARC 3.5-185 IH20 01+T15 ORB Z=8.295 (QENM07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	6.8860
.805	8.7517
.829	5.8906
.862	3.9689
.963	2.9006
1.000	.0000
1.014	.0000

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ARC 3.5-185 IH20 01+T15 ORB PHI=130. (QENN07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	9.8843
.829	6.7077
.862	2.8853
.963	.2815

ARC 3.5-185 1H20 01+T15 OMS TOP (QEN007) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	8.3697
.829	5.2180
.862	1.9824
.963	1.8197

ARC 3.5-185 IH20 01+T15 OMS INSIDE (QENP07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	2.3510
.963	2.0134

ARC 3.5-185 IH20 01+T15 ORB Y=1.75 (QENQ07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.08

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.1479
1.050	.2156

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DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 BOTTOM RCS (QENR07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)RCS

DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.3289
1.014	.5717

ARC 3.5-185 IH20 01+T15 EXTERNAL TANK (QENT07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												30.8485			
.010												32.5357			
.040	9.0996											16.9865			
.080	6.0843											12.6941	10.5758		
.150	2.7638											3.9529		2.9241	3.8299
.200				3.2489								1.8505			
.250				2.3339								1.3310			
.275				2.3486	1.7933										
.300			2.5803	2.3036	2.2571							1.5438		.0793	
.325				2.2969	2.4672		1.0735								
.350			2.5964	2.5258	2.4043		1.1094					1.5076			
.375							1.4478					2.8235			
.400	1.9258	3.1136	2.5681	2.3482	2.2030		1.8566		2.4377		2.7257	2.7001			.8886
.425									3.2348	3.6103		6.4450			
.450				2.3318	2.0434		2.5109		3.2060			17.4580			
.475									2.3842			3.0272			
.500		.0000	2.6491	2.2404	2.3762		2.3465		3.3893		3.2450	2.1437		3.8280	
.525												4.8075			
.550				2.1381	2.2638		2.3186		2.7026			3.9618			
.575												3.8584			
.600	2.7009	2.8551	2.4771	2.5362	2.3593		3.1928		3.2639			3.3688			2.2761
.625												3.2628			
.650			2.4755	2.1706	2.1818		4.1205		2.6941			2.9078			
.675												4.0818			
.700		2.7958	2.5029	1.8711	2.3502		4.6711		2.7975		3.5806	3.6771		2.6716	
.750			2.6431	1.8975	2.6188		4.3833		2.6637			3.0318			
.800	3.2354	2.6908	2.5765	1.8906	2.5371		4.4264		2.1067			3.4198			2.8201
.825						7.2266									
.850				1.8857	3.1917	2.1858	6.8417		2.7403			4.5276			
.875						2.7319									
.900		2.6834	2.5405	1.9679	3.6717	4.2821	3.5224		4.7328		4.6328	6.2975		4.6209	
.925						6.0243									7.6342
.935								13.1809							
.937												10.5988			
.960						1.0061									
.975												1.2352			

ARC 3.5-185 IH20 01+T15 EXTERNAL TANK (QENT07)

MACH (1) = 5.300 ALPHA (1) = 5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L		
.335	1.6162	
.400	1.5407	2.9129
.500	5.4189	
.600		2.7402
.700	3.2499	
.800		2.4736

ARC 3.5-185 IH20 01+T15 ORB Z=8.75 (QENU07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.96

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	2.1493
1.014	2.0248

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ARC 3.5-185 IH20 01+T15 VERTICAL TAIL (QENV07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.08

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		14.9207	13.1899	.0000	21.4607
.100	3.2489	3.2753	3.8771	4.9597	8.7681
.300	6.1135	1.7127	1.8926	2.5646	
.500		5.1019	1.1881	2.1876	.0000
.700	.9841	1.4169	.3746	.6218	
.900		1.1473	1.2812	.0000	

ARC 3.5-185 IH20 01+T15 WING BOTTOM SURF. (QENH07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.96

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						16.6099		3.7791			5.1623	1.5447
.005		2.6420	2.7573		13.0552		.0000			6.5077		
.025	3.0716			8.0543	9.8680		13.2682					
.050										5.7462		
.100				3.3729		4.1903	5.1699	6.1336		5.6231		
.153	2.3635											
.177					.0000							
.200				2.5539		4.3987						
.299	2.2203											
.300					5.3326	4.7811		8.2627	7.7562	4.3387		
.302				3.1284								
.303							5.8662					
.428						6.4933						
.444	2.5398											
.487					6.0325							
.500							7.6038	8.8690		5.4595		
.559				6.4357								
.590	2.5679											
.600					5.1678	5.0496			3.7954			
.700				4.8390	4.0758	3.6993	2.9656			3.5521		
.736	11.8411											
.800						2.3522	2.9520					
.850						2.9242	3.0696					
.900	.6207			3.0241	2.5382	2.4837	2.2892			2.6699		

ARC 3.5-185 IH20 01+T15 WING UPPER SURF. (QENX07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	6.1022	7.0255	10.7372
.200	1.2559	1.6163	2.4353
.600	.0523	.2259	.5246
.800		.0399	.3641
.900		.0823	.2338
.950	.4203	.0939	.0000

ARC 3.5-185 IH20 01+T15 CLUSTERS B AND C (QENY07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.06

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	16.6099	3.7791
.050	13.6948	7.5652
.100	13.2458	6.3954
.150	10.7385	5.7636
.200	8.9335	4.7761
.250	7.4095	4.3109
.300	5.7702	3.8221

ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ07) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0629 PO = 407.02 TO = 1294.3 HO = 316.08

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	3.8169	16.7589	3.2705	4.7676	2.3672				
.238					2.3980				
.254				2.1429					
.278			2.7383						
.281		14.7048							
.474			3.5183						
.477					2.4419				
.499	2.3145								
.510				1.4381					
.555		5.6754							
.672				2.9584					
.696	2.0361								
.713					3.3601				
.728			4.7212						
.746		5.3558							
.780				4.1529					
.882					3.5192				
.890				4.1413					
1.002			3.2380						
1.003					2.6068				
1.087								1.3979	
1.155			4.3620						
1.182		2.2248							
1.201				3.9855					
1.230	2.8356								
1.326							1.7434		
1.364					1.5996				
1.444								1.2955	
1.458							1.8993		
1.459					1.5380				
1.554	3.2740				1.3213				
1.606							1.5392		
1.608				.7365					
1.649					.5837				
1.750						1.5655			
1.896							2.8855		
1.933								2.2634	
1.975						1.4129			

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ07)

MACH (1) = 5.300 ALPHA (1) = 5.000

SECTION(1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				1.0017					
2.316					1.8016				
2.360	5.0294								
2.497						1.9387			
2.593						1.8547			
2.630		3.6556							
2.640						1.9261			
2.735							1.6465		
2.766				7.5072					
2.883					1.2570				
3.062						1.5496			
3.168	4.1373								
3.303			8.0997						
3.351		2.6502							
3.372							1.4167		
3.540				4.2137					
3.649					.1518				
3.844						1.3245			

ARC 3.5-185 IH20 01+T15 ORB PHI=0.0 (QENA08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	39.2458
.005	20.4644
.010	13.2250
.020	5.7778
.030	3.8543
.040	.0000
.050	2.0426
.060	3.2119
.070	5.1775
.080	2.2446
.090	12.7027
.100	20.4082
.120	5.9873
.130	3.2491
.140	3.1428
.150	2.8218
.160	2.4697
.170	2.0821
.180	1.6938
.190	1.3519
.200	1.6137
.225	3.3354
.250	3.4704
.275	3.2160
.300	2.4028
.325	2.2231
.350	1.4513
.375	1.4901
.400	1.3827
.425	1.8121
.450	1.9875
.475	1.9613
.500	1.6950
.525	1.5176
.550	1.3602
.575	1.3340
.600	1.3435
.625	1.5321

ARC 3.5-185 1H20 01+T15 ORB PHI=0.0 (QENA08)

MACH (1) = 7.300 ALPHA (1) = .000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	1.4779
.675	1.4075
.700	1.2253
.725	1.1924
.750	1.2425
.775	2.3477
.800	5.3633
.825	5.9463
.850	4.3761
.875	1.8424
.900	1.0173
.925	.8203
.950	.4838
.975	.3657
1.000	.2168
1.013	.0000
1.025	.1093
1.038	.0000
1.050	.0902

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ARC 3.5-185 IH20 01+T15 ORB Y=0.438 (QEN808) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	2.1313
.200	.7357
.300	2.0158

ARC 3.5-185 IH20 01+T15 ORB Y=0.875 (QENCOB) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	1.5210
.300	2.0907
.400	1.5145
.500	1.6581
.600	1.5090
.700	1.1347
.800	4.7022
.900	.5962

ARC 3.5-185 1H20 01+T15 ORB C.C.L.TANGENT (QENDO8) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	2.0644
.100	3.9668
.150	4.2100
.200	2.7859

ARC 3.5-185 IH20 01+T15 ORB M.H.B.TANGENT (QENE08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY

DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	3.6924
.100	1.5454
.150	1.9063

ARC 3.5-185 IH20 01+T15 ORB Z=6.125 (QENF08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.82

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	2.8234
.300	.2326
.800	.7001
.900	1.1777
.975	1.1314

DATE 13 SEP 75 TABULATED SOURCE DATA - 1H20

ARC 3.5-185 1H20 01+T15 WING UPPER CREASE (QENG08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	1.6479
.500	.8534
.600	1.2938
.700	.8136
.900	1.1877

ARC 3.5-185 IH20 01+T15 ORB Z=7.525 (QENH08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 857.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	1.5011
.400	1.1890
.500	.9517
.600	.9723
.700	1.3391
.800	.9836

ARC 3.5-185 IH20 01+T15 ORB WINDOWS (QEN108) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	25.5636		
.164	23.8726		
.168	21.9660		
.170		42.7228	
.178			42.2652
.182	14.8453	23.1215	31.4849
.185			21.9054
.191			17.1841
.200		9.8763	

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ARC 3.5-185 IH20 01+T15 ORB Z=8.379 (QENJOB) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	1.1014
.400	.7005
.500	.5381
.600	.4603
.700	.1171

ARC 3.5-185 IH20 01+T15 ORB PHI=180 (QENK08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	18.9650
.025	10.3302
.050	6.6193
.075	4.4779
.100	3.7318
.125	2.9230
.150	7.8999
.160	36.1950
.170	40.6749
.180	33.5113
.200	4.8505
.250	.5033
.300	.2489
.400	.2040
.500	.1927
.600	.7571
.700	1.0526
.800	1.9861

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 OMS BOTTOM CREASE (QENL08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	2.3492
.900	2.3743
.975	1.4775

ARC 3.5-185 IH20 01+T15 ORB Z=8.295 (QENM08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	4.6800
.805	.0022
.829	5.7303
.862	3.2274
.963	1.6613
1.000	1.8209
1.014	.0000

ARC 3.5-185 IH20 01+T15 ORB PHI=130. (QENN08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	13.0524
.829	6.1978
.862	2.2059
.963	.5614

DATE 13 SEP 75 TABULATED SOURCE DATA - 1H20

ARC 3.5-185 1H20 01+T15 OMS TOP (QEN008) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)OMS

DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	11.8131
.829	5.8755
.862	2.1901
.963	1.9840

ARC 3.5-185 IH20 01+T15 OMS INSIDE (QENP08) (12 SEP 75)

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	2.7988
.963	1.9783

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 ORB Y=1.75 (QENQ08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.708

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 857.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY

DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.2924
1.050	.1718

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 BOTTOM RCS (QENR08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 P0 = 867.73 T0 = 1508.1 H0 = 371.62

SECTION (1)RCS

DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.2378
1.014	.4303

ARC 3.5-185 IH20 01+T15 EXTERNAL TANK (QENT08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												30.5161			
.010												34.4784			
.040	7.8981											15.0196			
.080	4.3632											11.8731	7.9000		
.150	1.1017											3.8549		3.3542	3.2877
.200				.8820								1.3830			
.250				.4718								.5550			
.275				.4541	1.0484										
.300			.2706	.4184	1.0881							.4848		.0000	
.325				.3994	1.2190		.9370								
.350			.1677	.3812	1.2776		1.0216					.7098			
.375							1.0322					2.0977			
.400	.0000	.3504	.1699	.4427	1.5226		1.2785		2.7481		3.0112	2.4425			1.4324
.425									3.0593	3.1611		7.2805			
.450				.5865	1.6991		1.8947		2.6678			24.3343			
.475									1.2692			3.2837			
.500		.0000	.3009	.8902	1.7004		1.6161		2.0072		3.8651	1.6737		5.1594	
.525												4.5652			
.550				1.6997	1.8939		2.4248		.9501			3.5026			
.575												2.9129			
.600	.1730	.1927	.9013	1.5465	.8266		2.5137		1.6967			2.9649			1.5912
.625												2.6200			
.650			1.2334	1.9125	1.0370		2.3998		1.5099			2.1251			
.675												1.9281			
.700		.6952	1.2667	1.2747	1.3355		2.9083		1.0586		1.3471	2.0420		1.2450	
.750			1.3338	.9579	1.7858		1.8722		1.3609			2.1228			
.800	.1743	1.0169	1.4642	.6728	1.6252		2.0373		.8721			1.5436			1.1927
.825						3.2410									
.850				.7364	2.7120	.6737	3.6481		.9209			1.8962			
.875						1.2219									
.900		1.0803	1.4863	.8933	2.3487	1.6047	1.9611		2.3124		2.9686	4.1081		2.9091	
.925						3.6622									5.9897
.935								8.0649							
.937												6.9434			
.960						.4818									
.975												.9641			

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DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 EXTERNAL TANK (QENT08)

MACH (1) = 7.300 ALPHA (1) = .000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	216.0000	222.5000	229.0000
X/L			
.335		.8905	
.400	1.7612		1.9893
.500	5.5523		
.600			.8603
.700	2.3606		
.800			.8520

ARC 3.5-185 IH20 01+T15 ORB Z=8.75 (QENU08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	1.0338
1.014	1.0383

ARC 3.5-185 IH20 01+T15 VERTICAL TAIL (QENV08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		19.4941	14.4428	.0000	23.2262
.100	3.4139	3.7657	3.8118	4.7946	8.6449
.300	2.0456	1.6076	.0000	2.2513	
.500		1.9667	1.3277	1.5237	.0000
.700	.8219	2.0517	.4261	.4593	
.900		1.6716	.3539	.0000	

ARC 3.5-185 IH20 01+T15 WING BOTTOM SURF. (QENH08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						17.7272		4.5018			4.9686	1.0795
.005		1.4707	1.8425		11.9071		.0000			6.5594		
.025	2.1188			6.3284	7.9781		13.4904					
.050										5.5691		
.100				1.9090		2.4578	3.8747	5.2176		5.3173		
.153	1.3284											
.177					.0000							
.200				.9812		1.4988						
.299	1.4270											
.300					1.0592	1.1326		3.7441	4.0767	3.0253		
.302				.8412								
.303							2.1084					
.428						1.5458						
.444	1.3413											
.487					1.2125							
.500							2.1401	4.2553		3.0982		
.559				2.8639								
.590	1.3181											
.600					1.9266	1.9022			1.3647			
.700				2.4744	2.1500	1.5604	.8620			1.4414		
.736	7.2653											
.800						1.1256	.7453					
.850						1.4683	.8368					
.900	.3308			1.2251	1.1496	1.3271	.6211			.9063		

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ARC 3.5-185 IH20 01+T15 WING UPPER SURF. (QENX08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	7.2916	7.5173	12.7421
.200	1.5659	1.8908	2.5798
.600	.0950	.2653	.5109
.800		.1234	.3793
.900		.1566	.3622
.950	.0706	.0299	.0000

ARC 3.5-185 IH20 01+T15 CLUSTERS B AND C (QENY08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	17.7272	4.5018
.050	13.3758	8.9146
.100	11.7578	6.6800
.150	8.8157	5.6144
.200	6.7698	4.4805
.250	5.4736	3.4413
.300	4.0236	3.0529

ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ08) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 3.700

MACH (1) = 7.300 ALPHA (1) = 000 RN/L = 3.6702 PO = 867.73 TO = 1508.1 HO = 371.62

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	2.0426	20.4082	2.8218	1.6137	2.4028				
.238					2.0158				
.254				.7357					
.278			3.3099						
.281		17.9031							
.474			3.7749						
.477					2.0907				
.499	2.1313								
.510				1.5210					
.555		4.7518							
.672				2.7859					
.696	2.0644								
.713					2.7444				
.728			4.2100						
.746		3.9668							
.780				3.3875					
.882					2.4905				
.890				2.6435					
1.002			2.7867						
1.003					1.7312				
1.087								.7021	
1.155			1.9063						
1.182		1.5454							
1.201				.9757					
1.230	3.6924								
1.326							1.1877		
1.364					.2095				
1.444								1.1314	
1.458							1.1777		
1.459					-.1071				
1.554	4.0238				.2326				
1.606							1.3134		
1.608				1.0518					
1.649					.2382				
1.750						1.2938			
1.896							2.3743		
1.933								1.4775	
1.975						1.2879			

ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ08)

MACH (1) = 7.300 ALPHA (1) = .000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				.9572					
2.316					1.5011				
2.360	6.4439								
2.497						.9723			
2.593						.8579			
2.630		4.6916							
2.640						.8919			
2.735							1.3175		
2.766				9.8763					
2.883					1.1014				
3.062						.4603			
3.168	6.6193								
3.308			7.8999						
3.351		3.7318							
3.372							.6072		
3.540				4.8505					
3.649					.2489				
3.844						.7571			

ARC 3.5-185 IH20 01+T15 ORB PHI=0.0 (QENA09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.01

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	57.7276
.005	44.3417
.010	27.6994
.020	11.2737
.030	.0000
.040	.0012
.050	.0000
.060	2.5583
.070	.0000
.080	2.7761
.090	.0000
.100	15.7989
.120	25.3189
.130	.0000
.140	7.8747
.150	.0000
.160	3.5865
.170	.0000
.180	4.2897
.190	.0000
.200	3.6351
.225	.0000
.250	7.4802
.275	.0000
.300	6.4803
.325	.0000
.350	3.7464
.375	.0000
.400	3.9647
.425	.0000
.450	4.6741
.475	.0000
.500	4.9398
.525	.0000
.550	3.9072
.575	.0000
.600	3.1660
.625	.0000

DATE 13 SEP 75 TABULATED SOURCE DATA - 1H20

ARC 3.5-185 1H20 01+T15 ORB PHI=0.0 (QENA09)

MACH (1) = 7.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	3.4999
.675	.0000
.700	3.7712
.725	.0000
.750	3.6105
.775	.0000
.800	6.4254
.825	.0000
.850	9.8447
.875	.0000
.900	2.1915
.925	.0000
.950	.9903
.975	.0000
1.000	.3863
1.013	.0000
1.025	.5114
1.038	.0000
1.050	.6442

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ARC 3.5-185 IH20 01+T15 ORB Y=0.438 (QENB09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1632.4 HO = 378.01

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	4.4647
.200	2.1125
.300	5.8535

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 ORB Y=0.875 (QENC09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.01

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	3.4927
.300	5.9380
.400	3.5178
.500	4.1592
.600	3.0151
.700	2.3268
.800	7.2952
.900	1.4044

DATE 13 SEP 75 TABULATED SOURCE DATA - 1H20

ARC 3.5-185 1H20 01+T15 ORB C.C.L.TANGENT (QEND09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.01

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	4.9106
.100	.0000
.150	.0000
.200	.0000

ARC 3.5-185 IH20 01+T15 ORB M.H.B.TANGENT (QENE09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000. IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.91

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	8.8831
.100	7.6767
.150	.0000

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ARC 3.5-185 IH20 01+T15 WING UPPER CREASE (QENG09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.01

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	3.6313
.500	.0000
.600	.0000
.700	.0000
.900	.0000

ARC 3.5-185 IH20 01+T15 ORB Z=7.525 (QENH09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.01

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	2.9979
.400	2.3750
.500	.0000
.600	.0000
.700	.0000
.800	.0000

ARC 3.5-185 IH20 01+T15 ORB WINDOWS (QEN109) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 P0 = 1633.0 T0 = 1532.4 H0 = 378.01

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	.0000		
.164	.0000		
.168	.0000		
.170		53.5565	
.178			.0000
.182	.0000	34.4276	.0000
.185			.0000
.191			.0000
.200		16.5966	

ARC 3.5-185 1H20 01+T15 ORB PHI=180 (QENK09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.81

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	42.2686
.025	26.0759
.050	15.5764
.075	13.8114
.100	18.8626
.125	17.3945
.150	29.4744
.160	47.1034
.170	50.7492
.180	51.7433
.200	12.0385
.250	.0000
.300	.1495
.400	1.7471
.500	.0000
.600	2.9727
.700	.0000
.800	.0000

ARC 3.5-185 IH20 01+T15 ORB Y=1.75 (QENQ09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.01

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.3546
1.050	.2364

ARC 3.5-185 IH20 01+T15 WING BOTTOM SURF. (QENW09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000 RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.01

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						.0000		.0000			.0000	.0000
.005		.0000	.0000		.0000		.0000			.0000		
.025	5.2870			.0000	.0000		.0000					
.050										.0000		
.100				.0000		.0000	.0000	.0000		.0000		
.153	4.1966											
.177					.0000							
.200				.0000		.0000						
.299	2.7976											
.300					.0000	.0000		.0000	.0000	.0000		
.302				.0000								
.303							.0000					
.428						.0000						
.444	2.5001											
.487					.0000							
.500							.0000	.0000		.0000		
.559				.0000								
.590	2.5369											
.600					.0000	.0000			.0000			
.700				.0000	.0000	.0000	.0000			.0000		
.736	.0000											
.800						.0000	.0000					
.850						.0000	.0000					
.900	.0000			.0000	.0000	.0000	.0000			.0000		

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ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ09) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = -5.000. RN/L = 6.7145 PO = 1633.0 TO = 1532.4 HO = 378.81

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	.0000	15.7989	.0000	3.6351	6.4803				
.238					5.8535				
.254				2.1125					
.278			.0000						
.281		10.2851							
.474			8.1048						
.477					5.9380				
.499	4.4647								
.510				3.4927					
.555		.0000							
.672				.0000					
.696	4.9106								
.713					.0000				
.728			.0000						
.746		.0000							
.780				.0000					
.882					.0000				
.890				.0000					
1.002			5.9633						
1.003					.0000				
1.087								.0000	
1.155			.0000						
1.182		7.5767							
1.201				.0000					
1.230	8.8831								
1.326							.0000		
1.364					.0000				
1.444								.0000	
1.458							.0000		
1.459					.0000				
1.554	.0000				.0000				
1.606							.0000		
1.608				.0000					
1.648					.0000				
1.750						.0000			
1.896							.0000		
1.933								.0000	
1.975						.0000			

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ09)

MACH (1) = 7.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				.0000					
2.316					2.9979				
2.360	.0000								
2.497						.0000			
2.593						.0000			
2.630		.0000							
2.640						.0000			
2.735							.0000		
2.766				16.5966					
2.883					.0000				
3.062						.0000			
3.168	15.5764								
3.308			29.4744						
3.351		18.8626							
3.372							.0000		
3.540				12.0385					
3.649					.1495				
3.844						2.9727			

ARC 3.5-185 IH20 01+T15 ORB PHI=0.0 (QENA10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	51.4409
.005	33.4635
.010	21.8131
.020	9.3847
.030	5.7290
.040	.0000
.050	2.2877
.060	3.4340
.070	4.8963
.080	8.4801
.090	14.2251
.100	36.8079
.120	12.3679
.130	7.2156
.140	4.8111
.150	4.6589
.160	4.9416
.170	4.2710
.180	3.6485
.190	2.9979
.200	2.5206
.225	5.4964
.250	6.5248
.275	5.7001
.300	4.8282
.325	3.8721
.350	2.9083
.375	2.5541
.400	2.5461
.425	3.0435
.450	4.4893
.475	4.1384
.500	3.8830
.525	3.1476
.550	2.8906
.575	2.5003
.600	2.4958
.625	2.8201

ARC 3.5-185 IH20 01+T15 ORB PHI=0.0 (QENA10)

MACH (1) = 7.300 ALPHA (1) = .000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	3.2394
.675	3.1173
.700	2.8045
.725	2.6312
.750	2.5209
.775	4.3846
.800	8.0679
.825	8.8526
.850	7.8065
.875	3.0099
.900	1.6579
.925	1.0941
.950	.8331
.975	.5066
1.000	.3956
1.013	.0000
1.025	.2527
1.038	.0000
1.050	.1312

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ARC 3.5-185 IH20 01+T15 ORB Y=0.438 (QENB10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	2.9040
.200	.7822
.300	3.5595

ARC 3.5-185 IH20 01+T15 ORB Y=0.875 (QENC10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 ,IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	2.6560
.300	4.1914
.400	2.6924
.500	3.2684
.600	2.4788
.700	2.0094
.800	6.6603
.900	.8323

ARC 3.5-185 IH20 01+T15 ORB C.C.L.TANGENT (QEND10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	3.2710
.100	5.9355
.150	6.0628
.200	3.4197

ARC 3.5-185 IH20 01+T15 ORB M.H.B.TANGENT (QENE10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	5.6446
.100	2.9009
.150	4.1137

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DATE 13 SEP 75 TABULATED SOURCE DATA - 1H20

ARC 3.5-185 1H20 01+T15 ORB Z=6.125 (QENF10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	5.4249
.300	1.6632
.800	.6841
.900	1.3889
.975	1.1033

ARC 3.5-185 1H20 01+T15 WING UPPER CREASE (QENG10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	2.9459
.500	1.0088
.600	1.6991
.700	.9803
.900	1.0020

ARC 3.5-185 IH20 01+T15 ORB Z=7.525 (QENH10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	2.1601
.400	1.8636
.500	1.6730
.600	1.7936
.700	1.3997
.800	1.2388

ARC 3.5-185 IH20 01+T15 ORB WINDOWS (QENIIO) (12 SEP 75)

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	51.2881		
.164	41.2165		
.168	35.3754		
.170		46.9586	
.178			51.0693
.182	21.9425	37.9591	51.2895
.185			37.0682
.191			28.8932
.200		16.8779	

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ARC 3.5-185 IH20 01+T15 ORB Z=8.379 (QENJ10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	1.7823
.400	.9624
.500	.7821
.600	.8768
.700	.9111

ARC 3.5-185 IH20 01+T15 ORB PHI=180 (QENK10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 P0 = 1634.4 T0 = 1511.4 H0 = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	30.3635
.025	16.5097
.050	10.6476
.075	7.4696
.100	6.7058
.125	6.0683
.150	17.4455
.160	46.0372
.170	38.0005
.180	44.6466
.200	7.9202
.250	.7434
.300	.0646
.400	.0000
.500	.0000
.600	1.1144
.700	1.7424
.800	2.7991

ARC 3.5-185 IH20 01+T15 OMS BOTTOM CREASE (QENL10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.40

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	2.6021
.900	3.2494
.975	2.1075

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 ORB Z=8.295 (QENM10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	9.7595
.805	13.2028
.829	8.6734
.862	5.0908
.963	2.6883
1.000	2.9976
1.014	.0000

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ARC 3.5-185 IH20 01+T15 ORB PHI=130. (QENN10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY . DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	16.1682
.829	9.2516
.862	3.0789
.963	1.0445

ARC 3.5-185 IH20 01+T15 OMS TOP (QEN010) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	14.7629
.829	7.4908
.862	2.7855
.963	2.7061

ARC 3.5-185 IH20 01+T15 OMS INSIDE (QENP10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	3.6432
.963	3.0783

ARC 3.5-185 IH20 01+T15 ORB Y=1.75 (QENQ10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.3234
1.050	.1290

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ARC 3.5-185 1H20 01+T15 EXTERNAL TANK (QENT10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												48.2886			
.010												52.1481			
.040	10.1880											31.3789			
.080	5.4624											21.9591	15.8236		
.150	1.1982											7.3356		6.2238	6.4486
.200				1.4446								3.2070			
.250				1.0753								1.9500			
.275				1.4016	2.3308										
.300			.7273	1.6243	2.4113							2.0867		.0029	
.325				1.8492	2.3661		2.0939								
.350			.4881	2.3144	2.2950		2.0239					2.0239			
.375							1.9086					3.2213			
.400	.0000	2.3215	.6074	2.3840	2.3057		1.7854		3.8731		4.6146	3.9241			2.4039
.425									4.1543	4.2522		10.4463			
.450				2.4485	2.2913		2.3462		3.8181			31.2771			
.475									1.8913			5.1269			
.500		.0000	1.2682	2.3877	2.2164		1.9631		3.2750		6.0775	4.2790		9.2586	
.525												7.6690			
.550				2.2834	2.5605		3.2537		2.0143			5.0989			
.575												3.8797			
.600	1.8786	1.9859	2.3627	2.0270	1.4001		4.1978		2.3497			5.0165			2.7985
.625												4.9606			
.650			2.0514	2.4452	1.8624		4.3874		2.6141			4.1949			
.675												3.5939			
.700		2.0082	1.7514	1.8117	2.8012		4.8175		.0000		2.5236	3.5500		2.3340	
.750			1.8806	1.3221	3.1245		3.5572		2.1089			3.8998			
.800	1.8327	1.6227	1.9944	1.5057	2.8145		3.2161		1.1891			2.7829			1.9494
.825						5.6192									
.850				1.7920	3.6221	1.0949	5.4281		2.1271			2.8368			
.875						1.9527									
.900		1.5221	1.4991	2.0693	3.1451	2.4924	2.8442		2.8689		3.7863	5.3577		4.2210	
.925						5.2565									9.4837
.935								11.3306							
.937												9.9429			
.960						.5734									
.975												1.4827			

ARC 3.5-185 IH20 01+T15 EXTERNAL TANK (QENT10)

MACH (1) = 7.300 ALPHA (1) = .000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		1.9364	
.400	2.5851		2.3315
.500	8.6059		
.600			1.4341
.700	3.6763		
.800			1.0233

ARC 3.5-185 IH20 01+T15 ORB Z=8.75 (QENU10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY

DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	1.6959
1.014	1.6670

ARC 3.5-185 IH20 01+T15 VERTICAL TAIL (QENV10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		25.2643	17.0351	.0000	30.4636
.100	4.8178	5.2956	5.0085	6.1719	12.4533
.300	3.7532	2.5489	.0000	2.8685	
.500		4.6702	1.8744	1.7418	.0000
.700	1.0027	2.9415	.3780	.3842	
.900		2.2321	.3113	.0000	

ARC 3.5-185 IH20 01+T15 WING BOTTOM SURF. (QEN#10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						24.7739		5.6944			5.7560	1.3769
.005		2.1915	2.9722		20.9018		.0000			8.1521		
.025	3.9363			8.4638	13.2842		18.8294					
.050										6.8576		
.100				2.4413		3.4442	5.7174	8.3135		6.7690		
.153	2.9318											
.177					.0000							
.200				1.9620		2.0385						
.299	2.3426											
.300					1.6285	2.2690		7.8572	8.7966	6.5646		
.302				2.5288								
.303							5.4771					
.428						4.2113						
.444	2.2319											
.487					4.6272							
.500							5.8495	8.4292		6.3732		
.559				4.0868								
.590	2.4052											
.600					4.9384	3.7184			4.0017			
.700				3.9363	3.4912	2.6548	2.2595			.0000		
.736	9.8311											
.800						1.1145	1.0271					
.850						1.6166	.7988					
.900	.3855			1.6021	1.4578	1.8807	1.1843			1.3827		

ARC 3.5-185 IH20 01+T15 WING UPPER SURF. (QENX10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	13.8945	16.7349	17.9958
.200	2.8992	4.8331	3.8715
.600	.0000	.0000	.3803
.800		.0000	.2479
.900		.0714	.2828
.950	.0000	.0000	.0000

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ARC 3.5-185 IH20 01+T15 CLUSTERS B AND C (QENY10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	24.7739	5.6944
.050	20.3476	12.6051
.100	16.0347	10.0763
.150	12.5594	8.3664
.200	9.6764	6.8220
.250	8.5024	4.9529
.300	5.8123	4.1195

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ10) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8854 PO = 1634.4 TO = 1511.4 HO = 372.48

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	2.2877	36.8079	4.6589	2.5206	4.8282				
.238					3.5595				
.254				.7822					
.278			4.2823						
.281		27.5860							
.474			5.3304						
.477					4.1914				
.499	2.9040								
.510				2.6560					
.555		6.4943							
.672				3.4197					
.696	3.2710								
.713					4.4372				
.728			6.0628						
.746		5.9355							
.780				4.9015					
.882					3.9187				
.890				3.5738					
1.002			5.3565						
1.003					2.5648				
1.087									.9543
1.155			4.1137						
1.182		2.9009							
1.201				3.6447					
1.230	6.6446								
1.326								1.0020	
1.364					1.1355				
1.444									1.1033
1.458								1.3889	
1.459					1.1714				
1.554	5.5643				1.6632				
1.606								1.7513	
1.608				5.1841					
1.649					1.7673				
1.750						1.6991			
1.896								3.2494	
1.933									2.1075
1.975						1.1207			

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01+T15 ORBITER BODY (QENZ101)

MACH (1) = 7.300 ALPHA (1) = .000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				7.2239					
2.316					2.1601				
2.360	9.8270								
2.497						1.7936			
2.593						1.6603			
2.630		16.5567							
2.640						1.7630			
2.735							1.6315		
2.766				16.8779					
2.883					1.7823				
3.062						.8768			
3.168	10.6476								
3.308			17.4455						
3.351		6.7058							
3.372							1.2582		
3.540				7.9202					
3.649					.0646				
3.844						1.1144			

ARC 3.5-185 IH20 01 ORB PHI=0.0 (QENAII) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	17.2300
.005	10.2991
.010	6.6449
.020	2.9008
.030	2.1704
.040	1.5056
.050	1.1834
.060	.8345
.070	.7362
.080	.5938
.090	.5506
.100	.4423
.120	.3565
.130	.4208
.140	.2790
.150	.3141
.160	.2254
.170	.3239
.180	.1980
.190	.2703
.200	.1588
.225	.1809
.250	.1467
.275	.3172
.300	.1309
.325	.3626
.350	.1870
.375	.4704
.400	.3397
.425	.5653
.450	.4635
.475	.5852
.500	.5257
.525	.6380
.550	.6155
.575	.7335
.600	.6672
.625	.8061

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ARC 3.5-185 IH20 01 ORB PHI=0.0 (QENA11)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	.6913
.675	.7726
.700	.5550
.725	.8051
.750	.4980
.775	.7943
.800	.5105
.825	.8987
.850	.5445
.875	.7615
.900	.5098
.925	.6388
.950	.4449
.975	.5324
1.000	.4380
1.013	.0000
1.025	.4169
1.038	.0000
1.050	.4193

ARC 3.5-185 IH20 01 ORB Y=0.438 (QENB11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 · RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	1.5234
.200	.1760
.300	.0422

ARC 3.5-185 IH20 01 ORB Y=0.875 (QENC11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	.2736
.300	.2119
.400	.2203
.500	.3067
.600	.3523
.700	.4264
.800	.4749
.900	.3840

ARC 3.5-185 IH20 01 ORB C.C.L.TANGENT (QENDII) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	1.4925
.100	1.0172
.150	.4862
.200	.3110

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ARC 3.5-185 IH20 01 ORB M.H.B.TANGENT (QENE11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

. SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	2.1668
.100	1.1995
.150	.8117

ARC 3.5-185 IH20 01 ORB Z=6.125 (QENF11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	1.8061
.300	.1778
.800	.5797
.900	1.4601
.975	1.4191

ARC 3.5-185 IH20 01 WING UPPER CREASE (QENG11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	1.1995
.500	.6163
.600	1.2705
.700	.9040
.900	1.4180

ARC 3.5-185 1H20 01 ORB Z=7.525 (QENH11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	.5885
.400	.5298
.500	.7062
.600	.8018
.700	1.3547
.800	1.2614

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ARC 3.5-185 IH20 01 ORB WINDOWS (GENII) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	15.8351		
.164	15.2952		
.168	13.9648		
.170		17.3294	
.178			19.4538
.182	9.6224	9.7978	14.6146
.185			10.0824
.191			8.0372
.200		4.6047	

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 ORB Z=8.379 (QENJ11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	.8974
.400	.1634
.500	.8291
.600	.5059
.700	.8713

ARC 3.5-185 IH20 01 ORB PHI=180 (QENK11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	11.0439
.025	6.3874
.050	4.2700
.075	3.0402
.100	2.6393
.125	2.2315
.150	4.8932
.160	16.1544
.170	16.5949
.180	14.0615
.200	3.1845
.250	.3227
.300	.0896
.400	.4923
.500	1.4269
.600	1.3729
.700	1.4149
.800	1.3228

ARC 3.5-185 IH20 01 OMS BOTTOM CREASE (QENL11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	1.8168
.900	2.4213
.975	1.8041

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ARC 3.5-185 IH20 01 ORB Z=8.295 (QENM11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	8.6935
.805	5.8869
.829	2.8277
.862	1.5138
.963	.5143
1.000	.4369
1.014	.4329

ARC 3.5-185 IH20 01 ORB PHI=130. (QENN11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	6.8083
.829	3.8154
.862	1.5212
.963	.7759

ARC 3.5-185 IH20 01 OMS TOP (QENO11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	7.2353
.829	3.9299
.862	1.2967
.963	.8660

ARC 3.5-185 IH20 01 OMS INSIDE (QENP11) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.		
LREF =	1290.3000 IN.	YMRP =	.0000 IN.		
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	1.5963
.963	2.1071

ARC 3.5-185 IH20 01 ORB Y=1.75 (QENQ11) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.
LREF =	1290.3000 IN.	YMRP =	.0000 IN.
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0175		

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.6808
1.050	.4139

ARC 3.5-185 1H20 01 BOTTOM RCS (QENR11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.2686
1.014	.3066

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ARC 3.5-185 IH20 01 ORB Z=8.75 (QENU11) (12 SEP 75)

REFERENCE DATA

SREF	= 2690.0000 SQ.FT.	XMRP	= .0000 IN.		
LREF	= 1290.3000 IN.	YMRP	= .0000 IN.		
BREF	= 1290.3000 IN.	ZMRP	= .0000 IN.		
SCALE	= .0175				

PARAMETRIC DATA

ALPHA	= -5.000	BETA	= .000
MACH	= 5.300	RN/L	= 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	.6435
1.014	.5219

ARC 3.5-185 IH20 01 VERTICAL TAIL (QENV11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		11.6585	14.1378	.0000	20.5398
.100	2.2576	2.3798	3.4111	4.2898	7.2323
.300	3.2642	.8524	1.4585	2.0309	
.500		4.3802	.7068	1.3663	.0000
.700	.7178	1.3563	.3136	.3679	
.900		1.1540	.7081	.0000	

ARC 3.5-185 IH20 01 WING BOTTOM SURF. (QENH11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						13.4364		3.1977			2.6792	1.2251
.005		1.0280	1.4032		8.5240		9.2617			3.4538		
.025	1.7651			4.1277	5.1829		7.6224					
.050										2.9714		
.100				.9102		1.5712	1.9725	2.7352		2.9497		
.153	.2037											
.177					.7649							
.200				.3927		.9553						
.299	.0816											
.300					.6697	.6962		1.4380	1.6759	2.0742		
.302				.1769								
.303							1.0718					
.428						.7992						
.444	.1231											
.487					.6857							
.500							.9333	1.6350		1.7726		
.559				.0911								
.590	.1905											
.600					.6704	.5427			.6659			
.700				.1281	.5235	.3465	.3395			.7691		
.736	.5695											
.800						.2162	.3427					
.850						.2509	.3575					
.900	.6155			.1724	.1597	.2160	.2706			.5406		

ARC 3.5-185 IH20 01 WING UPPER SURF. (QENX11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	5.4157	6.6426	9.3963
.200	1.5152	1.7014	2.4167
.600	.1437	.3028	.4972
.800		.1434	.4046
.900		.2250	.4389
.950	.3312	.0340	.4047

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ARC 3.5-185 IH20 01 CLUSTERS B AND C (QENY11) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	13.4364	3.1977
.050	7.5365	5.4425
.100	7.6020	4.1160
.150	5.8681	2.9390
.200	4.2154	2.2644
.250	3.5089	1.5634
.300	2.3411	1.3569

ARC 3.5-185 IH20 01 ORBITER BODY (QENZII) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4328 PO = 118.08 TO = 1314.3 HO = 321.21

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	1.1834	.4423	.3141	.1588	.1309				
.238					.0422				
.254				.1760					
.278			.4955						
.281		.5545							
.474			.3148						
.477					.2119				
.499	1.5234								
.510				.2736					
.555		.7825							
.672				.3110					
.696	1.4925								
.713					.2072				
.728			.4862						
.746		1.0172							
.780				.3497					
.882					.1889				
.890				.4437					
1.002			.6122						
1.003					.2884				
1.087								1.2823	
1.155			.8117						
1.182		1.1995							
1.201				.7320					
1.230	2.1668								
1.326							1.4180		
1.364					.1684				
1.444								1.4191	
1.458							1.4601		
1.459					-.0667				
1.554	2.4320				.1778				
1.606							1.7415		
1.608				.6158					
1.649					.2267				
1.750						1.2705			
1.896							2.4213		
1.933								1.8041	
1.975						.8992			

ARC 3.5-185 IH20 01 ORBITER BODY (QENZ11)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				.7067					
2.316					.5885				
2.360	4.0703								
2.497						.8018			
2.593						.0017			
2.630		2.9897							
2.640						.4594			
2.735							.9693		
2.766				4.6047					
2.883					.8974				
3.062						.5059			
3.168	4.2700								
3.308			4.8932						
3.351		2.6393							
3.372							1.1694		
3.540				3.1845					
3.649					.0896				
3.844						1.3729			

ARC 3.5-185 IH20 01 ORB PHI=0.0 (QENA12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	31.9192
.005	21.2766
.010	13.7674
.020	5.5739
.030	3.7039
.040	2.8201
.050	2.0453
.060	1.5277
.070	1.2319
.080	1.0871
.090	.9048
.100	.7750
.120	.6249
.130	.5228
.140	.4766
.150	.4062
.160	.3833
.170	.3543
.180	.3395
.190	.3355
.200	.2802
.225	.1915
.250	.2363
.275	.3064
.300	.4227
.325	.6102
.350	.7544
.375	1.1000
.400	1.4447
.425	1.4983
.450	1.6449
.475	1.6363
.500	1.6473
.525	1.6836
.550	1.7406
.575	1.7016
.600	1.7255
.625	1.7779

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DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 ORB PHI=0.0 (QENA12)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	1.7399
.675	1.6553
.700	1.6552
.725	1.6213
.750	1.6131
.775	1.5131
.800	1.6785
.825	1.5563
.850	1.5913
.875	1.3316
.900	1.2589
.925	1.1219
.950	1.0150
.975	.9365
1.000	.9713
1.013	.0000
1.025	.8873
1.038	.0000
1.050	.8464

ARC 3.5-185 IH20 01 ORB Y=0.438 (QENB12) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.		
LREF =	1290.3000 IN.	YMRP =	.0000 IN.		
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	2.6268
.200	.0000
.300	.0000

ARC 3.5-185 IH20 01 ORB Y=0.875 (QENC12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000, BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	.5114
.300	1.7607
.400	1.9478
.500	2.1025
.600	2.0891
.700	2.0908
.800	1.9222
.900	1.3354

ARC 3.5-185 IH20 01 ORB C.C.L.TANGENT (QEND12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	2.0561
.100	1.6485
.150	.7068
.200	.4702

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ARC 3.5-185 IH20 01 ORB M.H.B.TANGENT (QENE12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	3.9649
.100	2.2582
.150	1.3044

ARC 3.5-185 IH20 01 ORB Z=6.125 (QENF12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN..
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	2.9951
.300	2.3484
.800	1.7381
.900	2.5499
.975	2.9582

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 WING UPPER CREASE (QENG12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)WING

DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	3.3433
.500	1.5176
.600	3.1515
.700	2.1584
.900	3.5849

ARC 3.5-185 IH20 01 ORB Z=7.525 (QENH12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	1.2963
.400	2.6202
.500	2.9119
.600	3.2823
.700	2.8814
.800	2.7977

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ARC 3.5-185 IH20 01 ORB WINDOWS (GEN112) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9578 PO = 405.59 TO = 1308.4 HO = 319.86

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	42.0066		
.164	31.6002		
.168	27.4367		
.170		44.8535	
.178			44.0828
.182	18.7030	25.6374	31.9943
.185			24.1723
.191			20.6556
.200		13.3216	

ARC 3.5-185 IH20 01 ORB Z=8.379 (QENJ12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.68

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	2.4169
.400	2.1810
.500	3.1451
.600	3.0297
.700	2.9528

ARC 3.5-185 IH20 01 ORB PHI=180 (QENK12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	20.5026
.025	11.8919
.050	8.4228
.075	6.4035
.100	6.0013
.125	6.0110
.150	17.4958
.160	42.9206
.170	43.3517
.180	35.7570
.200	8.3773
.250	.6219
.300	.1732
.400	3.6808
.500	3.8336
.600	3.5915
.700	3.1954
.800	3.7745

ARC 3.5-185 IH20 01 OMS BOTTOM CREASE (QENL12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	3.3636
.900	4.7629
.975	4.0363

ARC 3.5-185 IH20 01 ORB Z=8.295 (QENM12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE CDOT

Z 8.2950

X/L	
.780	16.0268
.805	12.5111
.829	7.1369
.862	4.2840
.963	3.0345
1.000	3.3919
1.014	2.9444

ARC 3.5-185 IH20 01 ORB PHI=130. (QENN12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	17.5870
.829	10.3217
.862	3.6260
.963	3.5646

ARC 3.5-185 IH20 01 OMS TOP (QEN012) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	19.1289
.829	10.2208
.862	3.1864
.963	2.7338

ARC 3.5-185 IH20 01 OMS INSIDE (QENP12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	4.3934
.963	4.3730

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ARC 3.5-185 IH20 01 ORB Y=1.75 (QENQ12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.8733
1.050	.5482

ARC 3.5-185 1H20 01 BOTTOM RCS (QENR12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.5242
1.014	.7527

ARC 3.5-185 IH20 01 ORB Z=8.75 (QENU12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	2.9255
1.014	2.6030

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 VERTICAL TAIL (QENV12) (12 SEP 75)

REFERENCE DATA

PARAMETRIC DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.	ALPHA =	-5.000 BETA = .000
LREF =	1290.3000 IN.	YMRP =	.0000 IN.	MACH =	5.300 RN/L = 5.000
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9059
X/C					
.000		17.8768	19.9701	.0000	40.0096
.100	4.1420	4.0310	6.3279	8.3794	15.4027
.300	7.3215	3.3733	3.4488	4.6080	
.500		8.5876	2.8615	3.5370	.0000
.700	.9034	2.6332	1.1806	.7643	
.900		2.6407	2.4447	.0000	

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 WING BOTTOM SURF. (QENW12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						34.5743		5.0318			5.4067	2.1852
.005		1.7636	3.2541		21.4065		20.4610			7.5576		
.025	4.0337			7.7210	12.3108		16.6589					
.050										5.8288		
.100				1.3922		3.1304	3.6228	6.1114		5.4018		
.153	.2819											
.177					1.3951							
.200				.5430		2.0160						
.299	.0947											
.300					1.4143	2.4254		3.4612	3.7493	4.0558		
.302				.3110								
.303							2.4767					
.428						3.9376						
.444	.2476											
.487					2.3824							
.500							4.9994	5.1657		4.7544		
.559				.6082								
.590	.9860											
.600					2.1348	2.6490			2.7030			
.700				1.0430	1.4729	1.7366	1.8637			2.0192		
.736	2.4237											
.800						.8766	1.2732					
.850						.9060	1.3643					
.900	1.0049			.6669	.4559	.6671	.9321			1.3882		

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 WING UPPER SURF. (QENX12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	16.5560	23.3719	33.9135
.200	5.3577	7.8294	11.5743
.600	.4562	1.3269	2.5881
.800		.6841	2.2809
.900		1.1142	2.5989
.950	1.1515	.5987	2.7963

ARC 3.5-185 1H20 01 CLUSTERS B AND C (QENY12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	34.5743	5.0318
.050	23.9120	12.8301
.100	17.0421	9.3058
.150	14.4823	6.8738
.200	10.0338	5.0545
.250	8.9321	3.1494
.300	5.3528	2.6458

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ARC 3.5-185 IH20 01 ORBITER BODY (QENZ12) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.9579 PO = 405.59 TO = 1308.4 HO = 319.66

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	2.0453	.7750	.4062	.2802	.4227				
.238					-.2497				
.254				.0039					
.278			.8004						
.281		.7802							
.474			-.1166						
.477					1.7607				
.499	2.6268								
.510				.5114					
.555		1.2668							
.672				.4702					
.696	2.0561								
.713					.3145				
.728			.7068						
.746		1.6485							
.780				.4769					
.882					.3385				
.890				.6376					
1.002			1.6887						
1.003					.5469				
1.087								3.4666	
1.155			1.3044						
1.182		2.2582							
1.201				1.3026					
1.230	3.9649								
1.326								3.5849	
1.364					2.1283				
1.444									2.9582
1.458								2.6499	
1.459					1.9967				
1.554	4.0583				2.3484				
1.606								3.2617	
1.608				4.4401					
1.649					2.0393				
1.750						3.1515			
1.896								4.7629	
1.933									4.0363
1.975						1.4754			

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 ORBITER BODY (QENZ12)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				5.5691					
2.316					1.2963				
2.360	7.2004								
2.497						3.2823			
2.593						-.0029			
2.630		8.6226							
2.640						2.7202			
2.735							3.1427		
2.766				13.3216					
2.883					2.4169				
3.062						3.0297			
3.168	8.4228								
3.308			17.4958						
3.351		6.0013							
3.372							3.2940		
3.540				8.3773					
3.649					.1732				
3.844						3.5915			

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 ORB PHI=0.0 (OENA13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	31.5408
.005	23.3464
.010	16.5546
.020	8.0573
.030	5.9605
.040	4.5126
.050	3.6349
.060	2.7146
.070	2.3901
.080	2.0809
.090	1.8899
.100	1.6446
.120	1.5618
.130	1.3979
.140	1.4292
.150	1.4150
.160	1.5261
.170	1.5606
.180	1.6849
.190	1.9227
.200	1.6311
.225	1.7017
.250	2.0501
.275	.0000
.300	2.3030
.325	3.3306
.350	2.2864
.375	3.4667
.400	2.9010
.425	3.2351
.450	2.8879
.475	3.1756
.500	2.8558
.525	2.9990
.550	2.9017
.575	3.0314
.600	2.9927
.625	3.1434

ARC 3.5-185 1H20 01 ORB PH1=0.0 (OENA13)

MACH (1) = 5.300 ALPHA (1) = 5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	2.9355
.675	2.9178
.700	2.8147
.725	2.8206
.750	2.7259
.775	2.6611
.800	2.8370
.825	2.8076
.850	2.6284
.875	2.3934
.900	2.1995
.925	2.0834
.950	1.7460
.975	1.7108
1.000	1.7076
1.013	.0000
1.025	1.5601
1.038	.0000
1.050	1.4665

ARC 3.5-185 1H20 01 ORB Y=0.438 (QEN813) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	4.6681
.200	1.2919
.300	1.6206

ARC 3.5-185 IH20 01 ORB Y=0.875 (QENC13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	1.6289
.300	1.1625
.400	1.3471
.500	1.9887
.600	2.3932
.700	3.4041
.800	3.5847
.900	2.8199

ARC 3.5-185 IH20 01 ORB C.C.L.TANGENT (QEND13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	4.4241
.100	3.3482
.150	2.3759
.200	2.0791

ARC 3.5-185 IH20 01 ORB M.H.B.TANGENT (GENE13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE CMOT

MHB 1.0000

X/L	
.050	4.7537
.100	3.3352
.150	2.6668

ARC 3.5-185 IH20 01 ORB Z=6.125 (QENF13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	2.8071
.300	1.1054
.800	.9838
.900	2.5394
.975	2.0620

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ARC 3.5-185 IH20 01 WING UPPER CREASE (QENG13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	2.4416
.500	.8496
.600	1.9358
.700	1.2384
.900	2.1238

ARC 3.5-185 1H20 01 ORB Z=7.525 (QENH13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 P0 = 405.38 T0 = 1291.5 H0 = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	2.1121
.400	1.9584
.500	2.2070
.600	1.9683
.700	1.4258
.800	1.4820

ARC 3.5-185 IH20 01 ORB WINDOWS (QENI13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	27.2818		
.164	22.9431		
.168	20.3038		
.170		31.6514	
.178			34.5356
.182	13.4138	17.5755	25.8383
.185			19.1070
.191			15.5921
.200		8.7404	

ARC 3.5-185 IH20 01 ORB Z=8.379 (QENJ13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	1.3390
.400	1.2851
.500	1.7381
.600	1.3466
.700	1.4210

ORIGINAL PAGE IS OF POOR QUALITY

ARC 3.5-185 IH20 01 ORB PHI=180 (QENK13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	16.0159
.025	8.2398
.050	5.1344
.075	3.7514
.100	4.2024
.125	5.2517
.150	12.2429
.160	29.0693
.170	32.4896
.180	27.4865
.200	5.3218
.250	.7081
.300	.2988
.400	.4773
.500	1.3645
.600	1.6403
.700	1.8040
.800	2.3042

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 OMS BOTTOM CREASE (QENL13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	2.2289
.900	3.0420
.975	2.3006

ARC 3.5-185 IH20 01 ORB Z=8.295 (QENM13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.008

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	4.5452
.805	7.5915
.829	5.5885
.862	4.0697
.963	2.9498
1.000	3.1148
1.014	2.5791

ARC 3.5-185 IH20 01 ORB PHI=130. (QENN13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	9.3750
.829	6.8095
.862	3.1106
.963	2.1270

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ARC 3.5-185 IH20 01 OMS TOP (QEN013) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	8.5511
.829	6.3130
.862	2.0295
.963	1.8625

ARC 3.5-185 IH20 01 OMS INSIDE (QENP13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	2.3187
.963	2.0248

ARC 3.5-185 IH20 01 ORB Y=1.75 (QENQ13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE CDOT

Y 1.7500

X/L	
1.000	2.2690
1.050	2.0331

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 BOTTOM RCS (QENR13) (12 SEP 75)

REFERENCE DATA

SREF	= 2690.0000 SQ.FT.	XMRP	=	.0000 IN.	
LREF	= 1290.3000 IN.	YMRP	=	.0000 IN.	
BREF	= 1290.3000 IN.	ZMRP	=	.0000 IN.	
SCALE	= .0175				

PARAMETRIC DATA

ALPHA	= 5.000	BETA	= .000
MACH	= 5.300	RN/L	= 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.3249
1.014	.6275

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ARC 3.5-185 IH20 01 ORB Z=8.75 (QENU13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	2.1759
1.014	2.0465

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 VERTICAL TAIL (QENV13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		14.9146	13.9482	.0000	20.2367
.100	3.8623	3.5293	4.0328	4.9354	8.2837
.300	6.0906	2.5365	2.1815	2.5125	
.500		5.2358	1.5737	1.7754	.0000
.700	.9544	1.5934	.7522	.5011	
.900		1.1964	1.6403	.0000	

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DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 WING BOTTOM SURF. (QENW13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.008

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						34.7418		5.2642			6.6256	2.0687
.005		4.7936	4.0695		30.7846		22.7202			7.9165		
.025	4.4722			17.8215	22.9537		19.6495					
.050										6.9858		
.100				9.4793		10.3152	8.6131	7.0020		6.9353		
.153	2.3699											
.177					7.8745							
.200				6.7365		8.6740						
.299	1.6325											
.300					7.8640	6.3718		9.1612	7.3982	4.4443		
.302				6.3939								
.303							9.6720					
.428						8.4745						
.444	1.5058											
.487					7.9341							
.500							8.8019	9.6856		5.8947		
.559				6.3407								
.590	1.5495								4.2994			
.600					6.8581	6.6940						
.700				4.9194	5.3045	4.8560	3.5022			4.0563		
.736	5.2075											
.800						2.5947	2.9699					
.850						2.8777	3.1201					
.900	1.8454			2.4284	2.5203	2.4816	2.8155			3.1239		

ARC 3.5-185 IH20 01 WING UPPER SURF. (QENX13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	12.0492	16.6430	15.3739
.200	1.8506	4.0334	5.1337
.600	.0188	.3138	.8417
.800		.1532	.5494
.900		.1652	.6024
.950	.2116	.1186	.6556

ARC 3.5-185 IH20 01 CLUSTERS B AND C (QENY13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HQ = 315.35

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	34.7418	5.2642
.050	34.5915	10.0948
.100	25.7681	8.2799
.150	22.1219	7.1473
.200	18.2528	5.8104
.250	16.1212	4.9413
.300	12.5579	4.3299

ARC 3.5-185 IH20 01 ORBITER BODY (QENZ13) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.0612 PO = 405.38 TO = 1291.5 HO = 315.35

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	3.6349	1.6446	1.4150	1.6311	2.3030				
.238					1.6206				
.254				1.2919					
.278			2.9193						
.281		1.9549							
.474			1.4830						
.477					1.1625				
.499	4.6681								
.510				1.6289					
.555		2.4794							
.672				2.0791					
.696	4.4241								
.713					2.0027				
.728			2.3759						
.746		3.3482							
.780				2.0366					
.882					2.0585				
.890				2.5838					
1.002			2.5406						
1.003					2.1255				
1.087								1.8455	
1.155			2.6668						
1.182		3.3352							
1.201				2.4063					
1.230	4.7537								
1.326								2.1238	
1.364					1.8356				
1.444									2.0620
1.458								2.5394	
1.459					.9656				
1.554	4.2020				1.1054				
1.606								2.5878	
1.608				1.6956					
1.649					1.0021				
1.750						1.9358			
1.896								3.0420	
1.933									2.3006
1.975						2.0335			

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DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 ORBITER BODY (QENZ13)

MACH (1) = 5.300 ALPHA (1) = 5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				1.4132					
2.316					2.1121				
2.360	5.3916								
2.497						1.9683			
2.593						-.0046			
2.630		3.9601							
2.640						1.8461			
2.735							1.1287		
2.766				8.7404					
2.883					1.3390				
3.062						1.3466			
3.168	5.1344								
3.308			12.2429						
3.351		4.2024							
3.372							1.4744		
3.540				5.3218					
3.649					.2988				
3.844						1.6403			

ARC 3.5-185 IH20 01 ORB PHI=0.0 (QENA14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	45.0229
.005	30.5355
.010	20.3813
.020	9.0060
.030	6.0599
.040	.0000
.050	3.3262
.060	2.1576
.070	2.0628
.080	1.4253
.090	1.5352
.100	.7860
.120	.6317
.130	.8978
.140	.0000
.150	.6649
.160	.0000
.170	.5780
.180	.0000
.190	.5214
.200	.2518
.225	.2889
.250	.0000
.275	.2639
.300	.0000
.325	.2139
.350	.0000
.375	.2086
.400	.0000
.425	.2463
.450	.0000
.475	.3777
.500	.0000
.525	.5213
.550	.0000
.575	.7509
.600	.0000
.625	.9846

ARC 3.5-185 IH20 01 ORB PHI=0.0 (QENA14)

MACH (1) = 7.300 ALPHA (1) = .000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	.8370
.675	1.1500
.700	.9004
.725	1.2478
.750	1.0268
.775	1.2684
.800	1.1144
.825	1.4885
.850	1.2196
.875	1.3144
.900	.8911
.925	1.1585
.950	.7390
.975	.9698
1.000	.5938
1.013	.0000
1.025	.2943
1.038	.0000
1.050	.2756

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 01 ORB Y=0.438 (QEN814) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7527 PO = 1641.4 TO = 1527.0 HO = 376.50

SECTION (1)BODY

DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	4.6080
.200	.4473
.300	.0000

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ARC 3.5-185 IH20 01 ORB Y=0.875 (QENC14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	.9056
.300	.4775
.400	.7388
.500	1.0694
.600	1.3739
.700	1.8203
.800	1.8311
.900	1.2397

ARC 3.5-185 IH20 01 ORB C.C.L.TANGENT (QEND14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA(1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	4.5719
.100	2.8063
.150	1.4549
.200	.9198

ARC 3.5-185 IH20 01 ORB M.H.B.TANGENT (QENE14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY

DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	5.6407
.100	3.3138
.150	1.6285

ARC 3.5-185 IH20 01 ORB Z=6.125 (QENF14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	3.9205
.300	1.4952
.800	.7616
.900	1.8314
.975	1.3477

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ARC 3.5-185 IH20 01 WING UPPER CREASE (QENG14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	2.4994
.500	1.0750
.600	2.0711
.700	1.3701
.900	1.8676

ARC 3.5-185 IH20 01 ORB Z=7.525 (QENH14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	1.5247
.400	1.6477
.500	1.5714
.600	1.6513
.700	1.6866
.800	1.9400

ARC 3.5-185 IH20 01 ORB WINDOWS (QEN114) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	37.6543		
.164	35.2544		
.168	31.2223		
.170		49.5723	
.178			53.3216
.182	18.8410	31.7682	44.0515
.185			30.7448
.191			24.3453
.200		14.3868	

ARC 3.5-185 IH20 01 ORB Z=8.379 (QENJ14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	1.8851
.400	1.0680
.500	.4201
.600	1.2962
.700	1.5373

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ARC 3.5-185 IH20 01 ORB PHI=180 (QENK14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	25.6103
.025	14.3365
.050	9.0151
.075	6.0044
.100	4.9080
.125	3.4293
.150	11.7272
.160	46.7603
.170	42.8766
.180	46.1714
.200	8.8737
.250	.4424
.300	.0565
.400	.4933
.500	1.7564
.600	1.9988
.700	2.2192
.800	3.1297

ARC 3.5-185 IH20 01 OMS BOTTOM CREASE (QENL14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	2.7552
.900	3.5410
.975	2.4962

ARC 3.5-185 1H20 01 ORB Z=8.295 (QENM14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	11.1720
.805	10.4164
.829	7.9999
.862	5.0065
.963	3.1333
1.000	3.4383
1.014	.0000

ARC 3.5-185 IH20 01 ORB PHI=130. (QENN14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	14.1143
.829	12.2394
.862	4.8094
.963	3.3820

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ARC 3.5-185 IH20 01 OMS TOP (QEN014) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)OMS

DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	.0012
.829	9.7854
.862	3.9207
.963	2.7303

ARC 3.5-185 IH20 01 OMS INSIDE (QENP14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.	XMRP =	.0000 IN.	
LREF = 1290.3000 IN.	YMRP =	.0000 IN.	
BREF = 1290.3000 IN.	ZMRP =	.0000 IN.	
SCALE = .0175			

PARAMETRIC DATA

ALPHA = .000	BETA =	.000	
MACH = 7.300	RN/L =	7.000	

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	4.9319
.963	4.3571

ARC 3.5-185 IH20 01 ORB Y=1.75 (QENQ14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.6404
1.050	.5225

ARC 3.5-185 IH20 01 BOTTOM RCS (QENR14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.800

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.3534
1.014	.4146

ARC 3.5-185 IH20 01 ORB Z=8.75 (QENU14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	2.9895
1.014	2.6425

ARC 3.5-185 IH20 01 VERTICAL TAIL (QENV14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1530	.2990	.5320	.7650	.9050
X/C					
.000		20.1708	18.0531	.0030	34.8226
.100	4.8667	4.2750	5.0400	7.7359	14.1687
.300	6.2855	1.7858	2.3466	3.4954	
.500		5.3913	1.2106	2.6035	.0000
.700	2.0804	2.4092	.4013	.6762	
.900		1.7906	1.4925	.0000	

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ARC 3.5-185 IH20 01 WING BOTTOM SURF. (QENW14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						45.9927		9.1348			7.2509	1.2977
.005		3.0692	3.4445		35.0575		.0000			8.9543		
.025	4.7277			12.3792	21.4597		21.7665					
.050										7.7226		
.100				3.3571		5.0653	6.1882	6.7927		7.4375		
.153	1.4594											
.177					.0000							
.200				1.8736		3.1860						
.299	.8498											
.300					5.2767	3.9191		4.5267	4.3786	3.3455		
.302				2.1651								
.303							4.9307					
.428						6.0930						
.444	.6506											
.487					5.3101							
.500							6.5190	6.5305		2.6972		
.559				.0000								
.590	.4358											
.600					4.3120	4.0836			3.3004			
.700				3.2003	2.9974	2.7729	2.6183			1.7975		
.736	1.0670											
.800						1.4340	2.0229					
.850						1.5231	2.0201					
.900	.6952			.9848	.9276	1.1537	1.4781			1.6546		

ARC 3.5-185 IH20 01 WING UPPER SURF. (QENX14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	11.8625	28.2170	20.9898
.200	2.4409	7.0985	8.3145
.600	.1825	.6871	1.2191
.800		.4644	.7929
.900		.4983	.8077
.950	.2142	.4649	.0000

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ARC 3.5-185 IH20 01 CLUSTERS B AND C (QENY14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	45.9927	9.1348
.050	34.9121	12.1612
.100	28.9103	9.6184
.150	22.4638	7.4947
.200	16.8341	5.9329
.250	13.4674	4.0614
.300	8.7113	3.4127

ARC 3.5-185 IH20 01 ORBITER BODY (QENZ14) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.7927 PO = 1641.4 TO = 1527.0 HO = 376.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	3.3262	.7860	.6649	.2518	-.7718				
.238					-.2019				
.254				.4473					
.278			1.1620						
.281		1.5564							
.474			.9907						
.477					.4775				
.499	4.6080								
.510				.9056					
.555		1.9970							
.672				.9198					
.696	4.5719								
.713					.8230				
.728			1.4549						
.746		2.8063							
.780				1.0213					
.882					1.0377				
.890				1.0867					
1.002			2.0118						
1.003					1.2943				
1.087								1.4965	
1.155			1.6285						
1.182		3.3138							
1.201				2.2011					
1.230	5.6407								
1.326							1.8676		
1.364					1.3353				
1.444								1.3477	
1.458							1.8314		
1.459					.8840				
1.554	5.2708				1.4952				
1.606							1.7047		
1.608				2.8623					
1.649					1.4749				
1.750						2.0711			
1.896							3.5410		
1.933								2.4962	
1.975						1.3027			

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ARC 3.5-185 IH20 01 ORBITER BODY (QENZ14)

MACH (1) = 7.300 ALPHA (1) = .000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				4.2853					
2.316					1.5247				
2.360	8.4411								
2.497						1.6513			
2.593						1.8056			
2.630		11.7514							
2.640						1.9660			
2.735							2.4026		
2.766				14.3868					
2.883					1.8851				
3.062						1.2962			
3.168	9.0151								
3.308			11.7272						
3.351		4.9080							
3.372							2.6247		
3.540				8.8737					
3.649					.0565				
3.844						1.9988			

ARC 3.5-185 IH20 01+X28 ORB PHI=0.0 (QENA15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	17.2171
.005	10.3493
.010	6.5654
.020	2.7724
.030	2.2218
.040	1.4369
.050	1.2484
.060	.7828
.070	.7629
.080	.5492
.090	.5681
.100	.4015
.120	.3284
.130	.3247
.140	.2017
.150	.3552
.160	.2385
.170	.2860
.180	.2267
.190	.2541
.200	.1803
.225	.1395
.250	.1250
.275	.1544
.300	.1446
.325	.1974
.350	.1852
.375	.3124
.400	.3497
.425	.4279
.450	.4405
.475	.5119
.500	.5278
.525	.5817
.550	.5855
.575	.6694
.600	.6249
.625	.7069

ARC 3.5-185 IH20 01+X28 ORB PHI=0.0 (QENA15)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	.6073
.675	.6763
.700	.5806
.725	.6776
.750	.5764
.775	.6619
.800	.6172
.825	.7103
.850	.6068
.875	.6289
.900	.5124
.925	.5652
.950	.4398
.975	.4663
1.000	.4251
1.013	.0000
1.025	.3963
1.038	.0000
1.050	.3818

ARC 3.5-185 IH20 01+X28 ORB Y=0.438 (QENB15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	1.4786
.200	.2853
.300	.0651

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ARC 3.5-185 IH20 01+X28 ORB Y=0.875 (QENC15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	.3450
.300	.2479
.400	.3903
.500	.5267
.600	.6453
.700	.7580
.800	.6893
.900	.4892

ARC 3.5-185 IH20 01+X28 ORB C.C.L.TANGENT (QEND15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.58

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	1.4331
.100	.9776
.150	.8812
.200	.4129

ARC 3.5-185 IH20 01+X28 ORB M.H.B.TANGENT (QENE15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	2.1339
.100	1.1748
.150	1.9335

ARC 3.5-185 IH20 01+X28 ORB Z=6.125 (QENF15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	1.7994
.300	.7835
.800	.6513
.900	1.7041
.975	1.2565

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ARC 3.5-185 IH20 01+X28 WING UPPER CREASE (QENG15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	1.3232
.500	.5098
.600	1.1079
.700	.8109
.900	1.2396

ARC 3.5-185 IH20 01+X28 ORB Z=7.525 (QENH15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	.4793
.400	.4018
.500	.3447
.600	.9030
.700	1.2488
.800	1.2249

ARC 3.5-185 IH20 01+X28 ORB WINDOWS (QEN115) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	19.8315		
.164	16.1912		
.168	13.4617		
.170		19.4086	
.178			21.1190
.182	8.0250	10.1634	15.6639
.185			11.2208
.191			9.1480
.200		4.9769	

ARC 3.5-185 IH20 01+X28 ORB Z=8.379 (QENJ15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDQT

Z 8.3790

X/L	
.300	1.0747
.400	.3079
.500	.8708
.600	1.3643
.700	1.4050

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ARC 3.5-185 IH20 01+X28 ORB PHI=180 (QENK15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	10.7673
.025	6.1831
.050	4.1356
.075	2.9107
.100	2.5326
.125	1.6865
.150	7.6071
.160	20.2423
.170	18.9225
.180	15.4540
.200	3.2397
.250	.3056
.300	.1302
.400	.6951
.500	1.5059
.600	1.2814
.700	1.2806
.800	1.3171

ARC 3.5-185 IH20 01+X28 OMS BOTTOM CREASE (QENL15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	1.6606
.900	2.3074
.975	1.7339

ARC 3.5-185 IH20 01+X28 ORB Z=8.295 (QENM15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	9.0631
.805	5.8134
.829	3.0402
.862	1.5626
.963	.5535
1.000	.5253
1.014	.5397

ARC 3.5-185 IH20 01+X28 ORB PHI=130. (QENN15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	7.6547
.829	4.3784
.862	1.6242
.963	.8420

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ARC 3.5-185 IH20 01+X28 OMS TOP (QEN015) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.56

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	8.5191
.829	4.5947
.862	1.3896
.963	.9831

ARC 3.5-185 IH20 01+X28 OMS INSIDE (QENP15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	1.7868
.963	2.1303

ARC 3.5-185 IH20 01+X28 ORB Y=1.75 (QENQ15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.5093
1.050	.2425

ARC 3.5-185 IH20 01+X28 BOTTOM RCS (QENR15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.2803
1.014	.3149

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ARC 3.5-185 IH20 01+X28 ORB Z=8.75 (QENU15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.7500

X/L	
1.000	.7557
1.014	.6460

ARC 3.5-185 IH20 01+X28 VERTICAL TAIL (QENV15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		11.3559	12.8222	.0000	20.7635
.100	2.3591	2.3101	3.2346	4.1510	7.1423
.300	3.3462	.8870	.0000	1.9891	
.500		4.2620	.6766	1.4156	.0000
.700	.7622	1.3640	.2987	.4195	
.900		1.1358	.7231	.0000	

ARC 3.5-185 IH20 01+X28 WING BOTTOM SURF. (QENH15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						12.5375		2.8782			2.3644	1.0435
.005		.9583	1.4952		8.2638		8.7579			3.1736		
.025	2.1454			3.8638	5.1017		7.2415					
.050										2.7326		
.100				.8440		1.5043	1.8669	2.7037		2.6522		
.153	.2261											
.177					.7157							
.200				.3431		.9277						
.299	.0697											
.300					.6638	.6448		1.3769	1.5108	1.8854		
.302				.1477								
.303							.9604					
.428						.8480						
.444	.1215											
.487					.7420							
.500							.8655	1.5684		1.5577		
.559				.1076								
.590	.2057											
.600					.6573	.6486			.5833			
.700				.1470	.4914	.4068	.3538			.6777		
.736	.6431											
.800						.2131	.3512					
.850						.2551	.3839					
.900	.5921			.1811	.1528	.1993	.2790			.5138		

ARC 3.5-185 IH20 01+X28 WING UPPER SURF. (QENX15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	5.6125	6.3024	9.2091
.200	1.7096	1.6894	2.3752
.600	.1432	.2853	.4883
.800		.1930	.3978
.900		.2432	.4011
.950	.3254	.1756	.3898

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ARC 3.5-185 IH20 01+X28 CLUSTERS B AND C (QENY15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	12.5375	2.8782
.050	12.0831	5.2571
.100	7.3641	4.0110
.150	5.6585	2.9243
.200	4.2291	2.2720
.250	3.3192	1.6059
.300	2.3390	1.3757

ARC 3.5-185 IH20 01+X28 ORBITER BODY (QENZ15) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4802 PO = 120.93 TO = 1307.7 HO = 319.50

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
.000	1.24[illegible]	.4015	.3552	.1803	.1446				
.238					.0651				
.254				.2853					
.278			.7135						
.281		.5468							
.474			.3364						
.477					.2479				
.499	1.4786								
.510				.3450					
.555		.7507							
.672				.4129					
.696	1.4331								
.713					.2880				
.728			.8812						
.746		.9776							
.780				.4495					
.882					.3394				
.890				.6643					
1.002			1.2344						
1.003					.4227				
1.087								1.2257	
1.155			1.9335						
1.182		1.1748							
1.201				1.6810					
1.230	2.1339								
1.326							1.2396		
1.364					.6359				
1.444								1.2565	
1.458							1.7041		
1.459					.6536				
1.554	2.5953				.7835				
1.606							1.5007		
1.608				2.0161					
1.649					.8709				
1.750						1.1079			
1.896							2.3074		
1.933								1.7339	
1.975						1.0393			

ARC 3.5-185 IH20 01+X28 ORBITER BODY (QENZ15)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				2.2556					
2.316					.4793				
2.360	4.4118								
2.497						.9030			
2.593						-.0011			
2.630		3.3384							
2.640						-.0046			
2.735							1.3692		
2.766				4.9769					
2.883					1.0747				
3.062						1.3643			
3.168	4.1356								
3.308			7.6071						
3.351		2.5326							
3.372							1.4384		
3.540				3.2397					
3.649					.1302				
3.844						1.2814			

ARC 3.5-185 IH20 01+X28 ORB PHI=0.0 (QENA16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.000	30.4777
.005	20.7108
.010	13.3665
.020	5.3237
.030	3.4753
.040	2.6673
.050	1.9422.
.060	1.4300
.070	1.1712
.080	1.0039
.090	.8501
.100	.7236
.120	.5832
.130	.4182
.140	.3864
.150	.9689
.160	1.0157
.170	1.0998
.180	1.1296
.190	1.1205
.200	1.1164
.225	1.0628
.250	1.4353
.275	1.4869
.300	1.3993
.325	1.4763
.350	1.2858
.375	1.5408
.400	1.5266
.425	1.4193
.450	1.3954
.475	1.3481
.500	1.3072
.525	1.2975
.550	1.3010
.575	1.2772
.600	1.3006
.625	1.3487

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ARC 3.5-185 IH20 01+X28 ORB PHI=0.0 (QENA16)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI .0000

X/L	
.650	1.2995
.675	1.2827
.700	1.2675
.725	1.2984
.750	1.2601
.775	1.2334
.800	1.3349
.825	1.3386
.850	1.2898
.875	1.1762
.900	1.0719
.925	1.0224
.950	.8588
.975	.8457
1.000	.8330
1.013	.0000
1.025	.7698
1.038	.0000
1.050	.7459

ARC 3.5-185 IH20 01+X28 ORB Y=0.438 (QEN816) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .4380

X/L	
.050	2.6065
.200	1.6446
.300	1.5444

ARC 3.5-185 IH20 01+X28 ORB Y=0.875 (QENC16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y .8750

X/L	
.200	2.4697
.300	1.8103
.400	1.7324
.500	1.7686
.600	1.6402
.700	1.6100
.800	1.5296
.900	1.1026

ARC 3.5-185 IH20 01+X28 ORB C.C.L.TANGENT (QEND16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.008

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

CCLT 1.0000

X/L	
.050	1.9685
.100	1.5844
.150	2.6588
.200	2.6141

ARC 3.5-185 IH20 01+X28 ORB M.H.B.TANGENT (QENE16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

MHB 1.0000

X/L	
.050	3.8747
.100	2.2188
.150	4.6577

ARC 3.5-185 IH20 01+X28 ORB Z=6.125 (QENF16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 6.1250

X/L	
.076	2.8652
.300	2.3107
.800	1.7041
.900	2.3939
.975	2.4054

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ARC 3.5-185 IH20 01+X28 WING UPPER CREASE (QENG16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)WING DEPENDENT VARIABLE QDOT

WINGUC 1.0000

X/L	
.400	3.2007
.500	1.3548
.600	2.8516
.700	2.0754
.900	3.3819

ARC 3.5-185 IH20 01+X28 ORB Z=7.525 (QENH16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 7.5250

X/L	
.300	1.2980
.400	2.4225
.500	2.5439
.600	2.8670
.700	2.4694
.800	2.4755

ARC 3.5-185 IH20 01+X28 ORB WINDOWS (QENI16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)WINDOW DEPENDENT VARIABLE QDOT

Z	7.9100	8.1370	8.3650
X/L			
.156	37.8028		
.164	29.2631		
.168	24.6386		
.170		40.9036	
.178			42.4445
.182	16.7828	23.9625	30.9166
.185			23.7795
.191			20.5495
.200		12.6659	

ARC 3.5-185 IH20 01+X28 ORB Z=8.379 (QENJ16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.3790

X/L	
.300	2.3312
.400	2.2993
.500	3.0711
.600	2.6889
.700	2.6471

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ARC 3.5-185 IH20 01+X28 ORB PHI=180 (QENK16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 180.0000

X/L	
.010	20.0848
.025	11.7223
.050	8.4843
.075	6.8192
.100	7.0935
.125	8.0810
.150	20.5670
.160	39.0379
.170	42.0716
.180	35.1562
.200	8.2900
.250	.5839
.300	.4602
.400	3.3560
.500	3.4729
.600	3.2066
.700	2.8411
.800	3.3474

ARC 3.5-185 1H20 01+X28 OMS BOTTOM CREASE (QENL16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)OMS DEPENDENT VARIABLE QDOT

OMS 1.0000

X/L	
.829	3.0578
.900	4.5471
.975	3.7437

ARC 3.5-185 IH20 01+X28 ORB Z=8.295 (QENM16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Z 8.2950

X/L	
.780	14.2684
.805	11.4773
.829	6.7514
.862	4.0981
.963	2.9501
1.000	3.4068
1.014	2.8815

ARC 3.5-185 IH20 01+X28 OR8 PHI=130. (QENN16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

PHI 130.0000

X/L	
.805	16.0826
.829	9.7415
.862	3.3336
.963	3.5100

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ARC 3.5-185 IH20 01+X28 OMS TOP (QEN016) (12 SEP 75)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	.0000 IN.		
LREF =	1290.3000 IN.	YMRP =	.0000 IN.		
BREF =	1290.3000 IN.	ZMRP =	.0000 IN.		
SCALE =	.0175				

PARAMETRIC DATA

ALPHA =	-5.000	BETA =	.000
MACH =	5.300	RN/L =	5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.6620

X/L	
.805	17.7244
.829	9.7268
.862	3.1657
.963	2.9227

ARC 3.5-185 IH20 01+X28 OMS INSIDE (QENP16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)OMS DEPENDENT VARIABLE QDOT

Y 1.1380

X/L	
.862	4.4444
.963	4.5525

ARC 3.5-185 IH20 01+X28 ORB Y=1.75 (QENQ16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDOT

Y 1.7500

X/L	
1.000	.7951
1.050	.4934

ARC 3.5-185 IH20 01+X28 BOTTOM RCS (QENR16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)RCS DEPENDENT VARIABLE QDOT

RCS 1.0000

X/L	
1.000	.5400
1.014	.7059

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ARC 3.5-185 IH20 01+X28 ORB Z=8.75 (QENU16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE CDOT

Z 8.7500

X/L	
1.000	2.9380
1.014	2.5885

ARC 3.5-185 IH20 01+X28 VERTICAL TAIL (QENV16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)TAIL DEPENDENT VARIABLE QDOT

Z/BV	.1590	.2990	.5320	.7650	.9050
X/C					
.000		16.1349	20.8974	.0000	35.8795
.100	4.4757	4.0107	5.9652	7.9519	14.6726
.300	7.9058	3.2981	3.4741	4.5295	
.500		8.4506	2.6611	3.3763	.0000
.700	1.3628	2.3064	.9089	.7014	
.900		2.3722	2.2869	.0000	

ARC 3.5-185 IH20 01+X28 WING BOTTOM SURF. (QEN416) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.73

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.000						34.6880		7.7364			5.2575	2.3863
.005		1.7031	3.2264		21.9586		20.7351			7.4140		
.025	3.6988			7.5921	12.0779		16.7100					
.050										5.5739		
.100				1.3096		2.9960	3.4221	6.1674		5.1858		
.153	.1329											
.177					1.2891							
.200				.5168		1.8537						
.299	.0549											
.300					1.2664	2.3147		4.2230	4.0293	4.4168		
.302				.3029								
.303							2.5820					
.429						3.9428						
.444	.3595											
.487					2.2587							
.500							5.0318	5.5909		4.9482		
.559				.4742								
.590	1.0860											
.600					2.0402	2.5992			2.7910			
.700				1.0419	1.3892	1.7200	1.7358			1.9486		
.736	2.3688											
.800						.8254	1.3007					
.850						.8543	1.3103					
.900	.9273			.7023	.4321	.6768	1.0041			1.3766		

ARC 3.5-185 IH20 01+X28 WING UPPER SURF. (QENX16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175 .

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.4000	.6000	.8000
X/C			
.050	15.7623	23.0721	32.2831
.200	5.3789	7.6330	11.0954
.600	.4401	1.2670	2.5050
.800		.7902	2.2167
.900		1.1102	2.5419
.950	1.2008	.8014	2.7182

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ARC 3.5-185 IH20 01+X28 CLUSTERS B AND C (QENY16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)WING DEPENDENT VARIABLE QDOT

2Y/B	.6000	.8500
S		
.000	34.6880	7.7364
.050	22.8235	13.2751
.100	17.1663	9.5317
.150	14.0674	6.6981
.200	10.0797	4.9692
.250	8.2900	3.1884
.300	5.3565	2.6481

ARC 3.5-185 IH20 01*X28 ORBITER BODY (QENZ16) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1252 PO = 405.56 TO = 1281.2 HO = 312.71

SECTION (1)BODY DEPENDENT VARIABLE QDQT

X/L	.0500	.1000	.1500	.2000	.3000	.5000	.7500	.9000	.9750
S/R									
.000	1.9422	.7236	.9689	1.1164	1.3993				
.238					1.5444				
.254				1.6446					
.278			2.1520						
.281		.8429							
.474			.7651						
.477					1.8103				
.499	2.6065								
.510				2.4697					
.555		1.1438							
.672				2.6191					
.696	2.9685								
.713					2360				
.728			2.6588						
.746		1.5844							
.780				1.7794					
.882					.3335				
.890				1.6148					
1.002			4.3646						
1.003					.4529				
1.087								3.2908	
1.155			4.6577						
1.182		2.2188							
1.201				4.6277					
1.230	3.8747								
1.326							3.3819		
1.364					1.9288				
1.444								2.4054	
1.458							2.3939		
1.459					1.9036				
1.554	3.7560				2.3107				
1.606							2.6751		
1.608				5.8390					
1.649					2.0743				
1.750						2.8516			
1.896							4.5471		
1.933								3.7437	
1.975						1.3069			

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ARC 3.5-185 IH20 01+X28 ORBITER BODY (QENZ16)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)BODY DEPENDENT VARIABLE QDOT

X/L	.0500	.1000	.1500	.2000	.3000	.6000	.7500	.9000	.9750
S/R									
2.116				5.5238					
2.316					1.2980				
2.360	7.4319								
2.497						2.8670			
2.593						-.0052			
2.630		8.3751							
2.640						2.6940			
2.735							2.9843		
2.766				12.6659					
2.883					2.3312				
3.062						2.6889			
3.168	8.4843								
3.308			20.5670						
3.351		7.0935							
3.372							3.1750		
3.540				8.2900					
3.649					.4602				
3.844						3.2066			

ARC 3.5-185 IH20 T15 EXTERNAL TANK (QENT17) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.5047 PO = 121.24 TO = 1296.0 HO = 316.47

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												17.1110			
.010												19.3804			
.040	3.5416											7.5234			
.080	1.9833											5.4812	3.9467		
.150	.6232											1.9648		2.2120	1.8747
.200				.5016								.8631			
.250				.3005								.3982			
.275				.2939	.5696										
.300			.2536	.3063	.5874							.3419		1.1904	
.325				.3108	.6093		.5448								
.350			.2508	.4080	.6183		.4818					.4918			
.375							.4877					.5708			
.400	.0961	.2026	.2596	.5993	.7645		.5227		.9816		1.3522	.9906			1.3314
.425									1.5831	2.3147		1.9613			
.450				.8908	.9498		1.2788		2.6743			10.1634			
.475									2.3414			2.2331			
.500		.0000	.5750	.9677	.9963		1.3463		2.2041		2.0847	.4165		1.9735	
.525												1.5347			
.550				.8893	1.0196		1.3970		.7398			2.4780			
.575												1.9063			
.600	.1423	.2686	.8938	.8328	.9460		1.2131		.7251			1.4758			.6662
.625												1.3707			
.650			.7923	.8203	.8704		1.0922		.7978			1.3664			
.675												1.4354			
.700		.8751	.6953	.7542	.8548		1.2862		.0000		1.1391	1.3626		.8565	
.750			.6278	.7483	.8438		1.1815		.7862			1.3351			
.800	.4972	.8513	.6350	.7483	.8180		1.1580		.6248			1.2792			.7389
.825						1.9562									
.850				.7920	1.6443	.4610	2.1315		.4832			1.2240			
.875						.8498									
.900		.6863	.6900	.8555	1.4868	1.0011	.7819		1.2393		1.4366	1.0181		1.6644	
.925						2.2662									3.2017
.935								3.8229							
.937												3.2283			
.960						.3127									
.975												.4203			

ARC 3.5-185 IH20 T15 EXTERNAL TANK (QENT17)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		1.3862	
.400	1.9428		1.2843
.500	1.2993		
.600			1.0332
.700	.4713		
.800			.6181

ARC 3.5-185 IH20 T15 EXTERNAL TANK (QENT18) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 4.8189 PO = 400.34 TO = 1321.0 HO = 322.90

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												36.9229			
.010												37.0352			
.040	5.5850											25.6139			
.080	3.2767											18.5766	12.5873		
.150	1.4612											7.7688		5.8969	6.7540
.200				2.7056								4.3810			
.250				1.9615								3.4131			
.275				1.9753	2.1624										
.300			1.7744	1.9331	2.1194							3.5192		2.4715	
.325				1.8819	2.1260		2.1994								
.350			1.7653	2.0596	2.1064		2.1038					3.2845			
.375							1.7915					3.0825			
.400	1.4814	1.6237	1.6878	1.7140	2.0926		1.6992		3.1332		3.8384	2.9637			3.2064
.425									3.8553	5.2779		4.5751			
.450				1.7556	2.0426		2.7601		3.9847			15.1268			
.475									4.5752			3.8384			
.500		.0000	1.6208	1.7334	1.8759		2.2955		4.4425		3.2068	.9287		3.3369	
.525												5.3007			
.550				1.7986	1.8865		2.4730		2.0053			5.2596			
.575												3.6046			
.600	1.3862	1.4609	1.5080	1.7252	1.6748		3.0459		2.3724			3.2136			1.7521
.625												3.6806			
.650			1.4883	1.7219	1.5763		3.2053		2.1572			4.1670			
.675												3.9075			
.700		1.4642	1.4502	1.6051	1.8725		3.4316		.0000		2.7562	3.6396		1.9473	
.750			1.3563	1.5577	1.9832		3.0592		2.1904			3.6071			
.800	1.3894	1.2867	1.2889	1.5410	1.4985		2.8561		1.6802			3.3950			1.8070
.825						5.2265									
.850				1.6264	3.0146	1.4291	4.9791		1.4849			3.4393			
.875						2.2135									
.900		1.2504	1.3814	1.6312	2.9092	2.6528	1.4610		3.0318		3.6908	4.1275		3.0904	
.925						5.1720									6.1745
.935								6.2374							
.937												6.7460			
.960						.6208									
.975												.2272			

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DATE 13 SEP 75 TABULATED SOURCE DATA - 1H20

ARC 3.5-185 1H20 T15 EXTERNAL TANK (QENT18)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L		
.335	1.9277	
.400	4.4353	1.8780
.500	2.7611	
.600		2.7765
.700	.7070	
.800		1.7568

ARC 3.5-185 IH20 T15 EXTERNAL TANK (QENT19) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 5.000 RN/L = 5.2286 PO = 404.59 TO = 1263.8 HO = 308.22

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												30.9142			
.010												32.5240			
.040	11.9713											16.7828			
.080	16.4544											12.7433	10.7101		
.150	6.8314											4.0036		2.8926	3.8152
.200				2.7799								1.8328			
.250				2.0821								1.1569			
.275				2.1236	1.9758										
.300			2.4499	2.0764	1.9025							1.3738		1.0575	
.325				2.0884	1.8782		1.4083								
.350			2.4458	2.2575	1.8073		1.2731					1.3273			
.375							1.1144					1.2710			
.400	3.1102	2.7413	2.4468	2.0824	1.7871		1.0046		1.4720		1.4990	1.0472			.8604
.425									1.9289	2.4585		2.2435			
.450				2.0885	1.7168		1.6383		2.3402			8.4644			
.475									1.9472			2.4847			
.500		.0000	2.4195	2.0503	1.6401		1.5539		2.0346		1.6058	1.0944		1.6342	
.525												4.1370			
.550				2.0160	1.5776		1.6663		1.3854			2.9398			
.575												2.1331			
.600	2.7402	2.5907	2.3127	2.0178	1.4601		1.5186		1.3412			1.7890			1.2216
.625												2.0530			
.650			2.3169	2.0041	1.4256		1.4354		1.0804			2.2614			
.675												2.2333			
.700		2.6365	2.3319	1.9125	1.4195		1.5278		.0000		1.3018	2.1742		1.6757	
.750			2.2977	1.9100	1.2940		1.4329		1.0069			2.2587			
.800	3.0225	2.5840	2.2239	1.7923	1.1187		1.2434		.9244			2.2821			1.4188
.825						2.1883									
.850				1.7353	1.6285	1.7183	1.6805		.8589			2.4291			
.875						1.4964									
.900		2.5903	2.1952	1.8079	1.4838	1.4441	1.7759		1.9282		2.2096	2.4588		2.2718	
.925						3.6004									3.9979
.935								6.8128							
.937												7.3275			
.960						.9572									
.975												.3764			

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ARC 3.5-185 IH20 T15 EXTERNAL TANK (QENT19)

MACH (1) = 5.300 ALPHA (1) = 5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		1.3870	
.400	1.5166		2.6364
.500	1.7478		
.600			1.5272
.700	.9274		
.800			.9734

ARC 3.5-185 IH20 T15 EXTERNAL TANK (QENT20) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = .000 BETA = .000
MACH = 7.300 RN/L = 7.000

MACH (1) = 7.300 ALPHA (1) = .000 RN/L = 6.8292 PO = 1647.3 TO = 1525.1 HO = 376.06

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												49.9483			
.010												53.3083			
.040	11.2628											31.6136			
.080	6.7105											22.6307	16.2996		
.150	2.2057											7.4456		6.0416	6.7321
.200				2.8078								3.2010			
.250				1.8143								1.8982			
.275				2.0518	2.1963										
.300			1.3862	2.0864	2.0143							2.0333		9.8530	
.325				2.1111	1.8871		2.0980								
.350			1.8665	2.3678	1.8698		1.9873					1.9575			
.375							1.8170					1.8009			
.400	1.0773	2.5227	2.1077	2.0860	1.8763		1.6537		2.3314		2.2066	1.4421			2.4585
.425									3.1022	4.3576		3.7308			
.450				2.0621	1.5275		1.8859		3.6722			18.0790			
.475									3.8371			4.0500			
.500		.0000	2.3270	1.8464	1.3563		1.9742		3.6800		2.9048	.7639		2.8595	
.525												3.7863			
.550				1.6692	1.5705		1.8501		1.4233			3.9867			
.575												2.7944			
.600	2.2038	2.1411	2.2334	2.0083	1.5769		1.5731		1.1943			2.2176			1.9883
.625												1.9994			
.650			2.2453	2.0841	1.5022		1.6511		1.5021			1.8110			
.675												1.9468			
.700		2.0923	2.1797	1.9917	1.4978		1.8465		.0000		1.9935	2.0866		1.3178	
.750			2.1135	1.9353	1.3231		1.8115		1.7480			2.1319			
.800	2.1898	1.9719	2.0033	1.8412	1.0439		1.7478		1.4917			2.0036			1.4672
.825						2.1792									
.850				1.7493	1.4529	.9215	2.6706		1.4616			1.9524			
.875						1.4650									
.900		1.9274	1.9050	1.7305	1.2554	1.9199	1.5750		3.5303		2.7958	1.6364		2.9755	
.925						3.4626									4.5273
.935								8.3037							
.937												5.2943			
.960						1.2976									
.975												.4218			

DATE 13 SEP 75 TABULATED SOURCE DATA - IH20

ARC 3.5-185 IH20 T15 EXTERNAL TANK (QENT20)

MACH (1) = 7.300 ALPHA (1) = .000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		1.6614	
.400	2.3944		2.0549
.500	1.5190		
.600			2.3015
.700	1.3311		
.800			1.4968

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ARC 3.5-185 IH20 T15+X28 EXTERNAL TANK (QENT21) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4960 PO = 121.40 TO = 1301.7 HO = 317.93

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												17.4773			
.010												18.8522			
.040	3.8049											7.7437			
.080	2.1534											5.5080	4.0977		
.150	1.1001											3.6039		2.8759	2.4897
.200				1.0886								1.5127			
.250				.5821								.8464			
.275				.5471	.6621										
.300			.4887	.5383	.6509							1.0614		1.1274	
.325				.4865	.7007		.7673								
.350			.5013	.4822	.7742		.7314					1.4835			
.375							.7556					1.4954			
.400	.3625	.7664	.5922	.6494	.9691		.7877		1.3692		1.5898	1.3355			1.3006
.425									2.1335	2.8871		2.5399			
.450				.9236	1.0620		1.2974		2.2205			8.2224			
.475									2.1702			2.2150			
.500		.0000	.7809	.9782	1.0538		1.2961		2.2096		1.7110	.4318		1.8811	
.525												1.6090			
.550				.9630	1.0605		1.2695		.7931			2.1241			
.575												1.6987			
.600	.6917	.7715	.7994	.8801	.9394		1.1599		.7612			1.4841			.6606
.625												1.4738			
.650			.7570	.8439	.8478		1.0410		.7791			1.5339			
.675												1.5033			
.700		.7542	.7002	.7567	.8225		1.3064		.0000		1.0579	1.4149		.8917	
.750			.6760	.7670	.7894		1.1846		.8324			1.3556			
.800	.6743	.7380	.6543	.7572	.8108		1.1657		.6736			1.2993			.7931
.825						1.9776									
.850				.8241	1.6570	.5092	2.2291		.5262			1.2374			
.875						.8784									
.900		.6876	.6897	.8338	1.5265	1.0168	.8263		1.2024		1.5412	1.0111		1.6830	
.925						2.3533									3.2450
.935								3.6112							
.937												3.2044			
.960						.3595									
.975												.4435			

ARC 3.5-185 IH20 T15+X28 EXTERNAL TANK (QENT21)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA 216.0000222.5000229.0000

X/L			
.335		1.4052	
.400	1.9990		1.2326
.500	1.3005		
.600			1.0660
.700	.5371		
.800			.5890

ARC 3.5-185 IH20 T15+X28 EXTERNAL TANK (QENT22) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.1414 PO = 403.77 TO = 1275.2 HO = 311.16

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	194.0000	196.0000	208.0000
X/L															
.000												.0000			
.005												34.8221			
.010												36.0508			
.040	7.5821											24.4021			
.080	7.8715											17.7567	12.0957		
.150	4.0642											7.5889		5.4221	6.5662
.200				2.9234								4.2459			
.250				2.1168								3.2587			
.275				2.1773	2.4667										
.300			1.8989	2.1085	2.3397							3.2900		2.0950	
.325				2.0396	2.2039		2.0355								
.350			1.8334	2.1842	2.1959		1.6328					3.1313			
.375							1.2244					2.9830			
.400	1.5496	1.6491	1.7867	1.8915	2.0999		1.1574		3.0140		3.6161	2.8373			3.0249
.425									3.6383	4.9361		4.4596			
.450				1.9352	2.0297		2.9284		3.7206			14.2897			
.475									4.5427			3.5110			
.500		.0000	1.6816	1.8685	1.9546		2.4807		4.1942		3.1637	.9170		3.1134	
.525												5.1200			
.550				1.8451	1.8410		2.5124		1.8739			4.7402			
.575												3.4304			
.600	1.3351	1.4548	1.5109	1.7114	1.6741		3.0119		2.2189			3.1930			1.4863
.625												3.5633			
.650			1.4377	1.7075	1.4851		3.1628		1.9949			3.9404			
.675												3.7257			
.700		1.3717	1.3931	1.5644	1.5844		3.2342		.0000		2.4685	3.5500		1.8120	
.750			1.3155	1.6434	1.6774		2.8588		2.0258			3.4605			
.800	1.2937	1.2639	1.2879	1.6484	1.7887		2.8654		1.5825			3.4090			1.6416
.825						5.2688									
.850				1.6801	3.0979	1.3679	4.9734		1.4063			3.3805			
.875						2.2430									
.900		1.2305	1.3719	1.7744	2.9844	2.5779	1.2286		2.8237		4.1729	3.9304		3.0115	
.925						4.6962									6.0907
.935								6.6303							
.937												7.3185			
.960						.3176									
.975												.1608			

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ARC 3.5-185 IH20 T15+X28 EXTERNAL TANK (QENT22)

MACH (1) = 5.300 ALPHA (1) = -5.000

SECTION (1)TANK DEPENDENT VARIABLE QDOT

THETA	216.0000	222.5000	229.0000
X/L			
.335		1.8404	
.400	4.2693		1.7770
.500	2.7914		
.600			2.4054
.700	.5436		
.800			1.6641

ARC 3.5-185 IH20 S8 SOLID BOOSTER (QENS23) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4385 PO = 121.33 TO = 1333.5 HO = 326.13

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI	90.0000	135.0000	180.0000	210.0000	215.0000	225.0000	240.0000	247.5000	260.0000	270.0000	315.0000
X/L											
.000	15.6483										
.002									16.6233		
.025	3.3337								3.7924		
.050	2.8305		4.2926						3.0348		
.075						3.4935			.0000		
.100	2.4419		3.4689			3.2925			2.6325		
.110									4.5723		
.115								5.6150			
.130									1.7485		
.150						.6769			2.3749		
.200			.7554			.4065			1.4905		
.250									.9674		
.300						.0000		.0000	1.1107	.8782	
.400	.5372		.8631			.7322		.8428	.0000		
.500			.8533			.0000		.0000	.0000	.0000	
.600			.9530			.7916		.6437	.0000		
.650			.9664					.0000	.4306		
.700	.0000	.0000	.9354			.0000		.0000	.0000	.4007	
.750			1.0426					.0000	.4628		
.780	.0000		4.7340			.0000			.7503	.0000	
.800	.1924		.8972			.0000			.1259	.0000	
.850			.0000			.0000			.0000		
.900	.0000	.0000	1.6878			.0000			.5892	.0000	
.904				1.9509							
.918				11.0330							
.925				9.4600	4.5718						
.930	2.3031	4.7763	6.3685			8.7336	4.5397		2.5465	1.3388	
.940					1.4904						
.950				1.9992							
.960			4.7929		1.3004	3.7277	4.2201		3.6480		
.970				.6686							
.990	3.4286	4.0029	4.7849			2.7249	3.4069		3.3555	2.0350	

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ARC 3.5-185 IH20 S8 SOLID BOOSTER (QENS24) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 15.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = 15.000 RN/L = 1.4498 PO = 122.79 TO = 1337.0 HO = 327.83

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI	90.0000	135.0000	180.0000	210.0000	215.0000	225.0000	240.0000	247.5000	260.0000	270.0000	315.0000
X/L											
.000	16.9808										
.002									22.4865		
.025	1.2673								9.3461		
.050	.5982		3.3758						7.2461		
.075						4.9584			.0000		
.100	.5984		2.8699			4.7609			5.5329		
.110									8.9052		
.115								10.1371			
.130									3.3612		
.150						2.1882			6.2763		
.200			.5917			2.7297			4.4613		
.250									3.6977		
.300						.0000	.0000		3.2938	3.1591	
.400	1.1908		.8093			1.8645	3.2259		.0000		
.500			.6614			.0000	.0000		.0000	.0000	
.600			.5968			2.3582	3.3246		.0000		
.650			.6125				.0000		3.7623		
.700	.0000	.0000	.5538			.0000	.0000		.0000	2.6978	
.750			.5338				.0000		4.1552		
.780	.0000		1.4710			.0000			12.7331	.0000	
.800	.6803		.7489			.0000			4.7988	.0000	
.850			.0000			.0000			.0000		
.900	.1021	.0000	.5245			.0000			3.8260	.0000	
.904				1.9806							
.918				11.7490							
.925				11.6358	13.4932						
.930	.8263	1.4737	2.5236			16.2886	9.7767		9.9503	7.6554	
.940					6.4287						
.950				3.9060							
.960			2.5131		5.0222	9.3431	9.0825		9.5184		
.970				1.4655							
.990	2.4303	1.1968	2.5007			5.8699	8.8769		9.5691	7.2823	

ARC 3.5-185 IH20 S8 SOLID BOOSTER (QENS25) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 20.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = 20.000 RN/L = 1.4012 PO = 118.76 TO = 1337.6 HO = 327.19

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI	90.0000	135.0000	180.0000	210.0000	215.0000	225.0000	240.0000	247.5000	260.0000	270.0000	315.0000
X/L											
.000	18.3068										
.002									24.5809		
.025	.9551								11.1539		
.050	.5233		3.4260						8.4527		
.075						5.5239			.0000		
.100	1.3542		2.7562			5.2267			6.3993		
.110									9.7177		
.115								11.4450			
.130									3.8174		
.150						2.7843			8.0782		
.200			.7378			2.6253			5.2647		
.250									4.2352		
.300						.0000	.0000		4.4006	3.8356	
.400	.5814		.7795			2.3870	4.3937		.0000		
.500			.7084			.0000	.0000		.0000	.0000	
.600			.5791			3.0902	4.7154		.0000		
.650			.6890				.0000		5.8091		
.700	.0000	.0000	.7432			.0000	.0000		.0000	4.1189	
.750			.6634				.0000		5.8710		
.780	.0000		1.9393			.0000			16.9618	.0000	
.800	.7206		.9955			.0000			6.5328	.0000	
.850			.0000			.0000			.0000		
.900	.0000	.0000	.6790			.0000			5.2418	.0000	
.904				2.8909							
.918				14.4170							
.925				14.3288	17.0899						
.930	1.0724	.6743	3.0186			20.2685	12.2245		12.5950	9.8476	
.940					8.7322						
.950				4.9544							
.960			2.8843		6.6391	11.4655	11.3962		11.7624		
.970				1.9800							
.990	1.2193	.5329	2.8999			6.9365	10.6995		11.2246	8.7845	

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ARC 3.5-185 IH20 S8 SOLID BOOSTER (QENS27) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = 15.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = 15.000 RN/L = 4.9393 PO = 403.97 TO = 1308.0 HO = 319.57

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI	90.0000	135.0000	180.0000	210.0000	215.0000	225.0000	240.0000	247.5000	260.0000	270.0000	315.0000
X/L											
.000	27.7778										
.002									37.7330		
.025	2.0799								15.9518		
.050	.9250		5.6555						12.5660		
.075						11.3418			.0000		
.100	1.9161		4.9511			11.6658			9.7551		
.110									19.5585		
.115								21.6925			
.130									7.5809		
.150						7.9126			12.6846		
.200			3.0500			6.4453			10.1121		
.250									9.4545		
.300						.0000	.0000		8.0857	6.9368	
.400	2.4302		1.8625			4.8341	7.6357		.0000		
.500			1.5836			.0000	.0000		.0000	.0000	
.600			1.3781			5.5747	7.5775		.0000		
.650			1.4139				.0000		8.3164		
.700	.0000	.0000	1.2682			.0000	.0000		.0000	6.3308	
.750			1.2348				.0000		8.7202		
.780	.0000		2.9692			.0000			24.5018	.0000	
.800	.7309		1.9146			.0000			10.8195	.0000	
.850			.0000			.0000			.0000		
.900	.0000	.0000	1.2737			.0000			9.5048	.0000	
.904				6.3515							
.918				27.7412							
.925				28.9862	31.9026						
.930	3.8961	3.0783	5.0788			31.3474	21.6579		22.1396	16.8242	
.940					16.6924						
.950				8.0595							
.960			6.4173		12.3962	22.5289	22.0398		23.3697		
.970				3.9988							
.990	4.5733	2.3559	6.4087			14.6325	21.4034		23.0342	17.2390	

ARC 3.5-185 IH20 SB+X28 SOLID BOOSTER (QENS29) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 1.500

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 1.4788 PO = 121.65 TO = 1312.7 HO = 320.79

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI	90.0000	135.0000	180.0000	210.0000	215.0000	225.0000	240.0000	247.5000	260.0000	270.0000	315.0000
X/L											
.000	15.0437										
.002									15.9810		
.025	3.2338								3.6608		
.050	2.7278		4.1920						2.8927		
.075						2.7501			-.0007		
.100	1.4015		2.0098			2.5711			1.3416		
.110									4.4407		
.115								5.0332			
.130									1.4644		
.150						1.3417			2.2437		
.200			1.7872			1.6291			1.2942		
.250									.7927		
.300						.0000	.0000		.8751	.9336	
.400	.9551		1.7781			1.2676	1.2225		.0000		
.500			1.6218			.0000	.0000		.0000	.0000	
.600			1.6077			1.3791	1.1152		.0000		
.650			1.6291				.0000		.7920		
.700	.0000	.0000	1.6088			.0000	.0000		.0000	.6903	
.750			1.4652				.0000		.6585		
.780	.0000		6.8630			.0000			.1620	.0000	
.800	.5922		1.7512			.0000			.6824	.0000	
.850			.0000			.0000			.0000		
.900	.0000	.0000	1.4763			.0000			.6493	.0000	
.904				1.5666							
.918				8.9832							
.925				8.3152	3.7838						
.930	2.0877	3.6048	4.9524			6.0956	3.3074		2.1896	1.6664	
.940					1.1996						
.950				2.0337							
.960			4.1702		1.2994	3.6421	3.3345		2.7675		
.970				.6642							
.990	2.8000	3.5738	4.1716			2.7115	3.1586		2.7296	1.8209	

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ARC 3.5-185 IH20 S8+X28 SOLID BOOSTER (QENS30) (12 SEP 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = .0000 IN.
LREF = 1290.3000 IN. YMRP = .0000 IN.
BREF = 1290.3000 IN. ZMRP = .0000 IN.
SCALE = .0175

PARAMETRIC DATA

ALPHA = -5.000 BETA = .000
MACH = 5.300 RN/L = 5.000

MACH (1) = 5.300 ALPHA (1) = -5.000 RN/L = 5.3870 PO = 395.61 TO = 1222.2 HO = 297.61

SECTION (1)SRB DEPENDENT VARIABLE QDOT

PSI 90.0000135.0000180.0000210.0000215.0000225.0000240.0000247.5000260.0000270.0000315.0000

X/L										
.000	21.2533							23.1250		
.002								5.2691		
.025	4.7731							3.9910		
.050	3.9162		6.2231			4.8597		.0000		
.075								1.9728		
.100	2.3352		3.6347			4.6836		8.2276		
.110							9.9854			
.115								2.4831		
.130								3.7852		
.150						2.5156		2.4349		
.200			3.4779			3.2809		1.8284		
.250								1.7213	1.6710	
.300						.0000	.0000	.0000		
.400	1.8565		3.9841			2.8076	2.4276	.0000	.0000	
.500			3.3842			.0000	.0000	.0000		
.600			3.1029			2.6159	2.0711	1.1217		
.650			3.1732				.0000	.0000	1.3078	
.700	.0000	.0000	3.1924			.0000	.0000	1.5469		
.750			3.2468				.0000	.0000	.0000	
.780	.0000		12.9631			.0000		1.4731	.0000	
.800	1.3120		3.7189			.0000		.0000		
.850			.0000			.0000		1.4366	.0000	
.900	.0000	.0000	2.9902			.0000				
.904				3.9708						
.918				18.2930						
.925				16.3793	7.3612					
.930	4.1567	6.8835	9.3933			10.5501	6.1300		4.4110	2.6766
.940					2.8517					
.950				3.7673						
.960			8.4045		2.7559	7.9095	6.7938		5.3996	
.970				1.6650						
.990	5.5016	7.5630	8.4077			6.5281	7.2840		5.3535	3.1080